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8 UNITED STATES DISTRICT COURT

9 EASTERN DISTRICT OF CALIFORNIA

10 ROBERT T. MATSUI FEDERAL COURTHOUSE

11 CALIFORNIA SPORTFISHING
12 PROTECTION ALLIANCE,

13 Plaintiff,

14 v.

15 KATHLEEN ALLISON, in her
16 official capacity as Secretary
of the California Department of
17 Corrections and Rehabilitation,

18 Defendants.

19 COUNTY OF AMADOR, a public
20 agency of the State of
California,

21 Plaintiff,

22 v.

23 KATHLEEN ALLISON in her
24 official capacity as Secretary
of the California Department of
Corrections and Rehabilitation;
25 PATRICK COVELLO in his official
capacity of Warden of
26 California Department of
Corrections and Rehabilitation
Mule Creek State Prison,

27 Defendants.
28

Case No. 2:20-cv-02482-WBS-AC

PLAINTIFFS COUNTY OF AMADOR'S
AND CALIFORNIA SPORTFISHING
PROTECTION ALLIANCE'S
APPENDIX OF EXHIBITS IN
SUPPORT OF MOTION FOR SUMMARY
ADJUDICATION

No. 2:21-cv-0038-WBS-AC

Date: Aug. 22, 2022
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1. Not. & P. & A.;
2. State. of Undisp. Facts;
3. Decls. of Ashby, Opalenik,
Andrews, Carlon, Emerick,
Taylor, Evatt, and
McHenry;
4. [Proposed] Order]

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Dated: June 27, 2022

BEST BEST & KRIEGER LLP

By: /s/ Gene Tanaka

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Dated: June 27, 2022

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EXHIBIT “1”

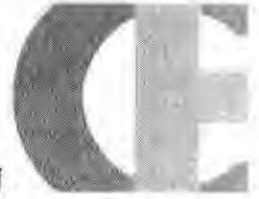
December 6, 2006

Mr. Michael Israel, Director
Department of Environmental Health
Amador County
810 Court Street
Jackson, CA 95642

MCSP, list
12/13/06

CARLTON

Engineering Inc.



DEC 8 3 2006

Re: Mule Creek Water Quality Testing

Dear Mr. Israel,

Carlton Engineering, Inc. (Carlton) is pleased to present this letter report concerning water quality testing of Mule Creek and water wells near the Mule Creek State Prison MCSP) in Amador County. The purpose of the project was to assess if MCSP is impacting surface water in Mule Creek and local groundwater. The work was based upon the Carlton proposal #13088 to Amador County Environmental Health (ACEH) dated September 28, 2006. The scope of work tasks included:

1. Up and down stream sampling and analysis of Mule Creek,
2. Sampling and analysis of identified local water wells,
3. Review of records/documents concerning water quality from and in the area of MCSP, and,
4. Preparation of a report on the findings.

RESULTS AND DISCUSSIONS

Mule Creek Sampling. Water samples from Mule Creek were collected by Carlton on October 10, 2006 and analyzed by California Laboratory Services. The data report and Chain of Custody (COC) record are in Appendix 1. Results are summarized in Table 1. Mule Creek was not flowing. The upstream sample (MCUSP1) was collected from an impoundment on Mule Creek east of MCSP and the downstream sample (MCDS1) was collected from ponded water in Mule Creek at Highway 104 downstream from MCSP spray disposal areas (see attached aerial photograph Figure 1 for sample locations). In addition, Table 1 includes results for surface water samples collected in September and October 2006 by Amador County Department of Environmental Health (DEH) from Mule Creek and drainage courses near MCSP spray disposal areas (see Figure 1 for sample locations, data reports and COCs are in Appendix 2).

Indicators of sewage: ammonia, phosphorus, Methylene Blue Active Substances (MBAS) and coliform bacteria were detected in downstream and spray area surface water samples. Although, ammonia and coliform were also detected in the upstream sample (MCUSP1). MBAS are surfactants commonly found in soaps and detergents. Coliform bacteria, including fecal coliform and E. coli were detected in the downstream samples in numbers higher than in the upstream samples. However, these elevated levels could also result from animal activity in the creek.

Area Groundwater Sampling. Groundwater samples from residential wells in the Mule and Dry Creek area were collected by Carlton on October 10 and November 15, 2006 and analyzed by California Laboratory Services. The data report and Chain of Custody record are attached. Results are summarized in Table 2. Sample locations are shown on Figure 2. All wells had either internal or external electrical pumps. Samples were collected from hose bibs close to each well. Bibs were opened for 30 seconds to 1 minute prior to sampling. Measurement of well depths to water was collected from five wells (Table 2).

The drinking water Maximum Contaminant Level (MCL) for nitrate (45 mg/l) is exceeded at the Howard Property for both the October and November samples (both 53 mg/l), and at the Collings Rd residence for both wells on the property (60 mg/l in the well used to supply drinking water to the residence and 69 mg/l for the irrigation well). No other chemical MCLs were exceeded in any sample. The Lab has reconfirmed the 3.7 mg/l for nitrate in the well at the 10805 Five Mile Drive residence. Water elevations in all the wells were shallow, ranging from 14 to 20 feet below ground surface. Coliform bacteria (no fecal coliform) were detected in the Collings Rd sample. According to the resident, this source of water is only used for outdoor watering, not for drinking water. If used for drinking water, State regulations would require resampling to determine a pattern, and treatment (chlorination) if the presence of coliform persists. If the holding tank we saw in the yard supplies water to the hose bib we sampled, air borne dust could be the source of the coliform.

CONCLUSIONS AND RECOMMENDATIONS

Mule Creek. The evidence is relatively clear that MCSP is impacting water quality in Mule Creek. This conclusion is evidenced by the Central Valley Region Water Quality Control Board (CVRWQCB) Notice of Violation (NOV) dated September 3, 2006 and their Draft Cease & Desist Order (C&D) to MCSP prepared in October 2006, after the initiation of our project. The NOV and C&D have provision that if implemented should correct MCSP water quality impacts on Mule Creek. Carlton does not recommend any additional activities related to Mule Creek water quality at this time.

Area Groundwater. The residential wells closest to MCSP have nitrate concentrations that exceed the drinking water standard (45 mg/l as nitrate). In addition, the City of Ione supplied to Carlton their data from monitoring wells installed at the Castle Oaks Golf Course to monitor reclaimed irrigation water under CRWQCB WDR Order No. 5-93-240. The Castle Oaks quarterly monitoring for nitrate since the first quarter 2002 (Figure 3) have detected elevated nitrate levels (as high as 90 mg/l in March 2005) in MW1, the background or up-gradient monitoring well. MW1 is the monitoring well closest to MCSP (Figure 1). The depths to water since the first quarter 2002 for MW1 range from 8 to 11 feet below ground surface.

ACEH supplied to Carlton a copy of a letter from MCSP dated September 28, 2000 concerning a spill of treated effluent (Appendix 3). Sampling of the spill detected nitrate at 54 mg/l. MCSP is not required per WDR Order No. 5-00-88 to test effluent for nitrogen compounds. Testing for nitrogen compounds in groundwater is included in the Draft Cease & Desist Order.

MCSP has a effluent dry weather discharge specification in WDR Order No. 5-00-88 of 0.74 million gallons a day. Assuming that MCSP has been spray disposing effluent since 1988 approximately 4.9 billion gallon could have been disposed to the land. Based upon the shallow groundwater elevation there is a potential that a significant percentage of the groundwater in the area of MCSP originated from the MCSP spray disposal fields.

Testing of this hypothesis can be completed by a comparison of water chemistry for the well samples by preparation of a trilinear diagram. This process compares ionic species that can indicate the water

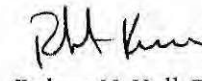
source. MCSP is required per WDR Order No. 5-00-88 to annually test their effluent for minerals. A second method would be the determination of the groundwater hydraulic gradient for the area. MCSP is required to install and monitor groundwater monitoring wells as stated in the Draft Cease & Desist Order. Once the program is implemented, then the data can be combined with the groundwater elevation data recorded for the Castle Oaks Golf Course by the City of Lone and the groundwater elevations for the residential wells. The top of casing elevations for the residential wells would need to be surveyed so the area groundwater flow direction can be determined.

The well at 10805 Five Mile Drive should be retested for nitrate to confirm the detected concentration because all the other sample nitrate concentrations were approximately 10 times its value.

We appreciate the opportunity to complete this project for Amador County. Please contact the undersigned if you have any questions.

Sincerely,
Carlton Engineering, Inc.


Mark S. Montgomery, Ph.D., R.E.A. II
Senior Environmental Engineer


Robert N. Kull, P.E.
Environmental Manager

Attachments: Tables 1 and 2
Figures 1, 2, and 3
Appendices 1, 2, and 3

TABLE 1. MULE CREEK WATER QUALITY TESTING

Date Sampled Sample ID Sample location	Analyte	Reporting Limit	Units	(10/10/06) MCUSP1 Mule Creek Up- stream Pond	(9/21/06) ACEH1 Mule Creek Up- stream Pond	(10/10/06) MCDS1 Mule Creek Down- stream at Hwy 104	(9/19/06) ACEH2 Mule Creek Down- stream at Hwy 104	(9/21/06) ACEH3 Mule Creek Sprayfield Runoff	(10/16/06) ACEH4 Un-named Creek So. Of Hwy 104
	Alkalinity, Total	5.0	mg/L	280		100			63
	Bicarbonate as CaCO ₃	5.0	mg/L	280		100			63
	Calcium	1.0	mg/L	44		35			
	Chloride	0.50	mg/L	20	15	15	10	79	8.7
	Conductivity	1.0	µmhos/cm	530		300			177
	Fluoride	0.10	mg/L	0.16		0.13			
	Hardness as CaCO ₃	1.0	mg/L	280		130			
	Magnesium	1.0	mg/L	41		9.5			
	Nitrate as NO ₃	2.0-10	mg/L	ND	<0.050	ND	<0.050	0.38	<0.50
	Ammonia as N	0.10	mg/L	0.32		0.28			7.7
	pH	-	pH units	7.80		7.39			
	Potassium	1.0	mg/L	2.6		3.3			9.3
	Sodium	1.0	mg/L	24		19			6.7
	Sulfate as SO ₄	0.50 - 2.5	mg/L	ND		41			103
	Total Dissolved Solids	10	mg/L	280	310	180	180	278	ND
	MBAS (1)	0.10	mg/l	ND	ND	0.12	ND	ND	0.16
	Total Phosphorus as P	0.050	mg/l	ND		0.59			
	Total Coliform	1.8	MPN/100 ml	110	1,700	>1,600	5,000	>24,000	>2,400
	Fecal Coliform	1.8	MPN/100 ml	49	40	170	30	3,000	500
	E. coli	1.8	MPN/100 ml	49		130			

ND Not detected above the reporting limit

(1) - Methylene Blue Active Substances, i.e., soaps

TABLE 2. IONE AREA WELL TESTING

Date Sampled	Sample ID	Sample location	Analyte	Reporting Limit	Units	10/10/2006	11/15/2006	11/15/2006	11/15/2006	11/15/2006	11/15/2006	11/15/2006	11/15/2006
						HP1 3740 HWY 104 Well #1 North of Residence	HP2 3740 HWY 104 Well #1 North of Residence	NS 3740 HWY 104 Well #2 South of Residence	CR1 10951 Collings Rd Well North of Residence	CR2 10951 Collings Rd Well NE of Residence	FMD1 10805 5 Mile Dr Well South of Residence	FMD2 10575 5 Mile Dr Well North of Residence	WR1 11300 Winter Rd Well SE of Residence
Alkalinity, Total				5.0	mg/L	65	60	NS	130	96	170	160	170
Bicarbonate as CaCO3				5.0	mg/L	65	60	NS	130	96	170	160	170
Calcium				1.0	mg/L	26	25	NS	36	30	39	60	57
Chloride				0.50	mg/L	25	23	NS	46	27	11	23	7.3
Conductivity				1.0	µmhos/cm	360	360	NS	600	430	450	620	490
Fluoride				0.10	mg/L	ND	ND	NS	0.12	0.13	0.17	0.15	0.17
Hardness as CaCO3				1.0	mg/L	130	120	NS	240	180	200	280	250
Magnesium				1.0	mg/L	15	14	NS	36	26	26	31	26
Nitrate as NO3				2.0-10	mg/L	53	53	NS	69	60	3.7	17	20
Ammonia as N				0.10	mg/L	ND	ND	NS	ND	ND	ND	ND	ND
pH				-	pH units	6.31	6.35	NS	6.98	6.48	6.77	6.96	6.89
Potassium				1.0	mg/L	6.0	5.6	NS	ND	ND	1.0	ND	ND
Sodium				1.0	mg/L	30	28	NS	29	19	21	34	14
Sulfate as SO4				0.50 - 2.5	mg/L	45	48	NS	45	35	49	130	73
Total Dissolved Solids				10	mg/L	240	240	NS	320	240	270	390	300
MBAS (1)				0.10	mg/l	ND	ND	NS	ND	ND	ND	ND	ND
Total Phosphorus as P				0.050	mg/l	ND	ND	NS	ND	ND	0.065	ND	ND
Total Coliform				1.8	MPN/100 ml	ND	ND	NS	350	ND	ND	33	ND
Fecal Coliform				1.8	MPN/100 ml	ND	ND	NS	ND	ND	ND	ND	ND
E. coli				1.8	MPN/100 ml	ND	ND	NS	ND	ND	ND	ND	ND
Depth to Water from Top of Well Casing (feet)						NS	15.70	16.60	19.75	18.45	14.75	NS	NS

(1) - Methylene Blue Active Substances, i.e., soaps

ND Not detected above the reporting limit

NS Not sampled or measured

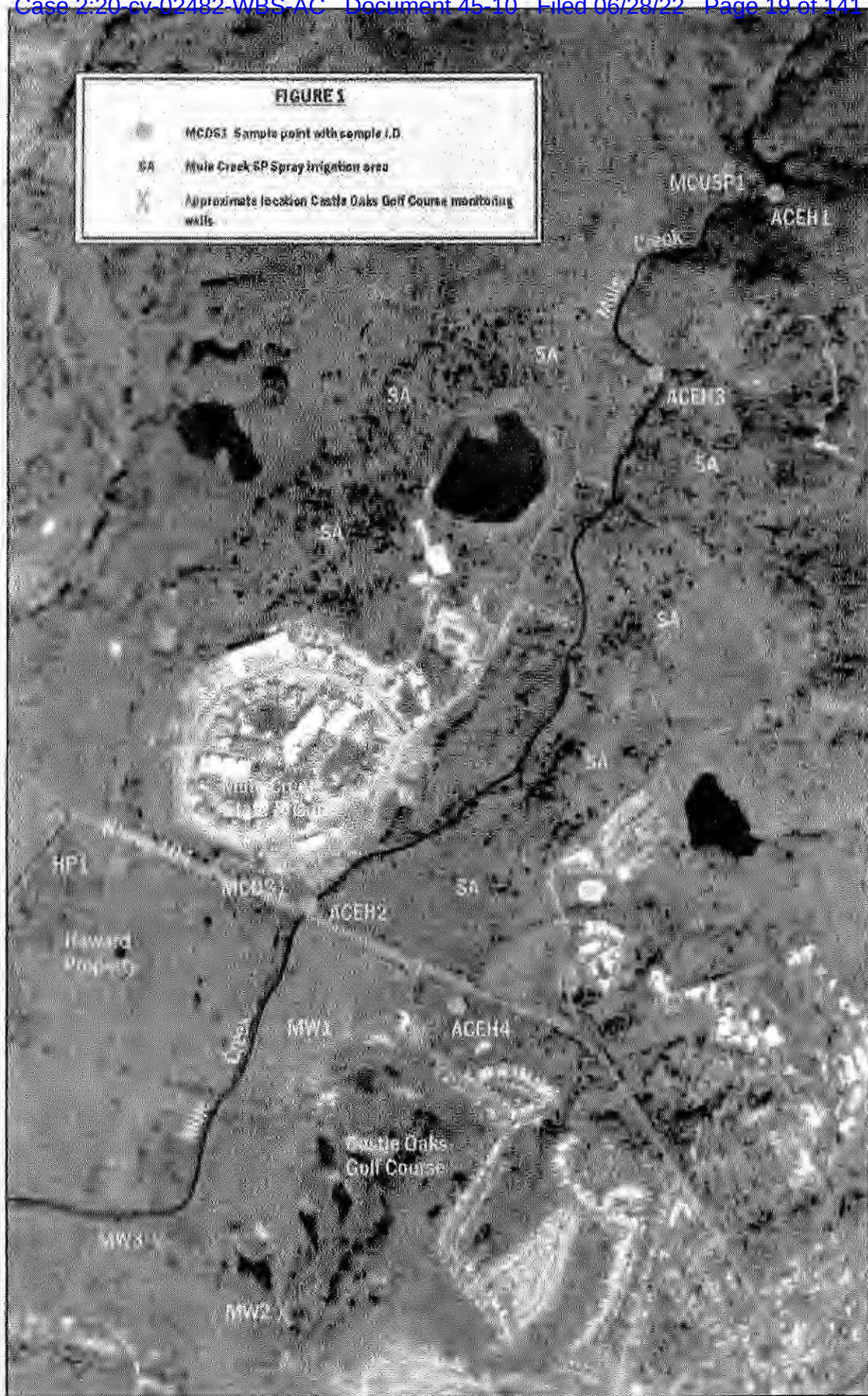


Figure 2.
Residence Well Sampling Locations

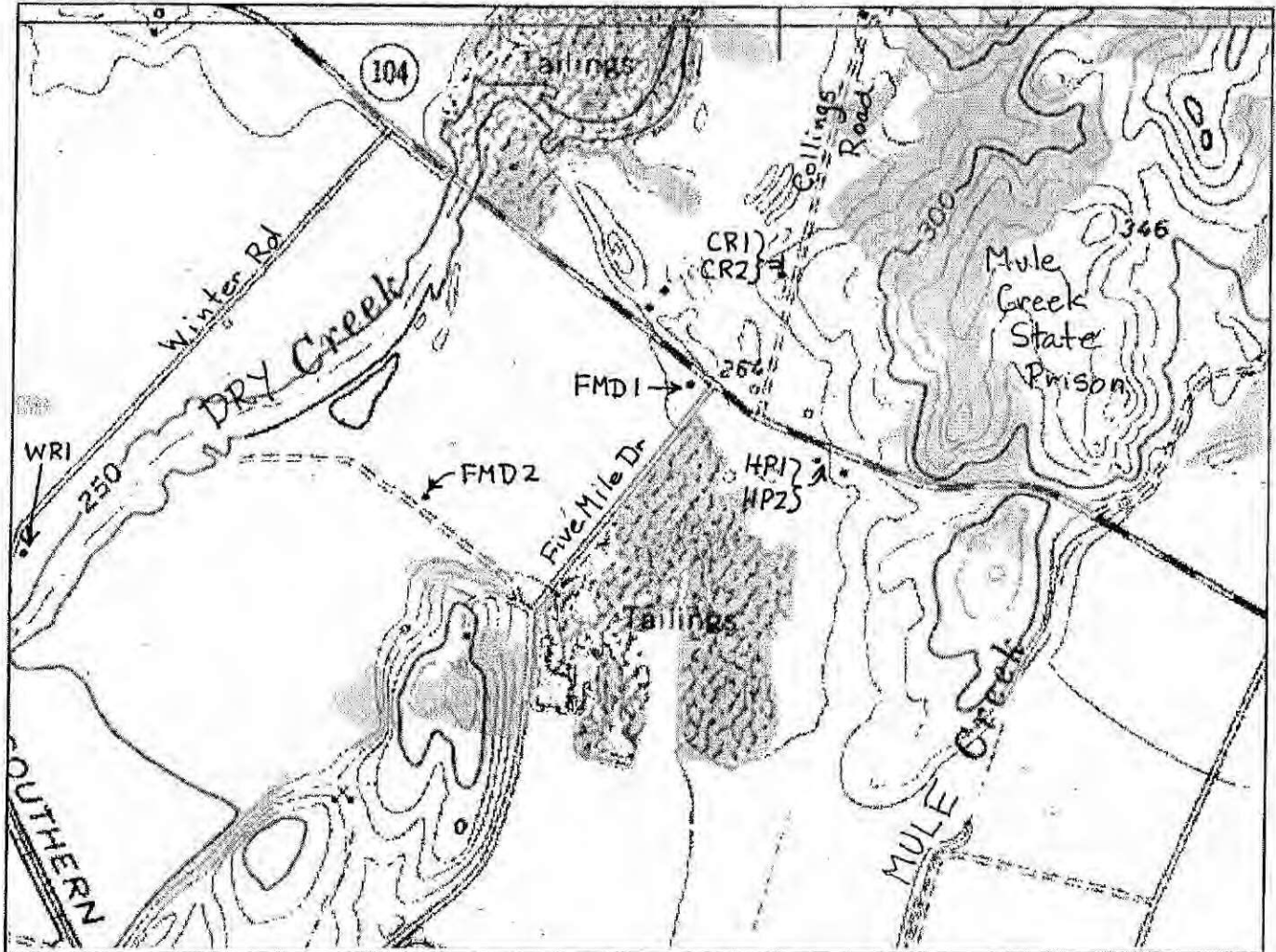
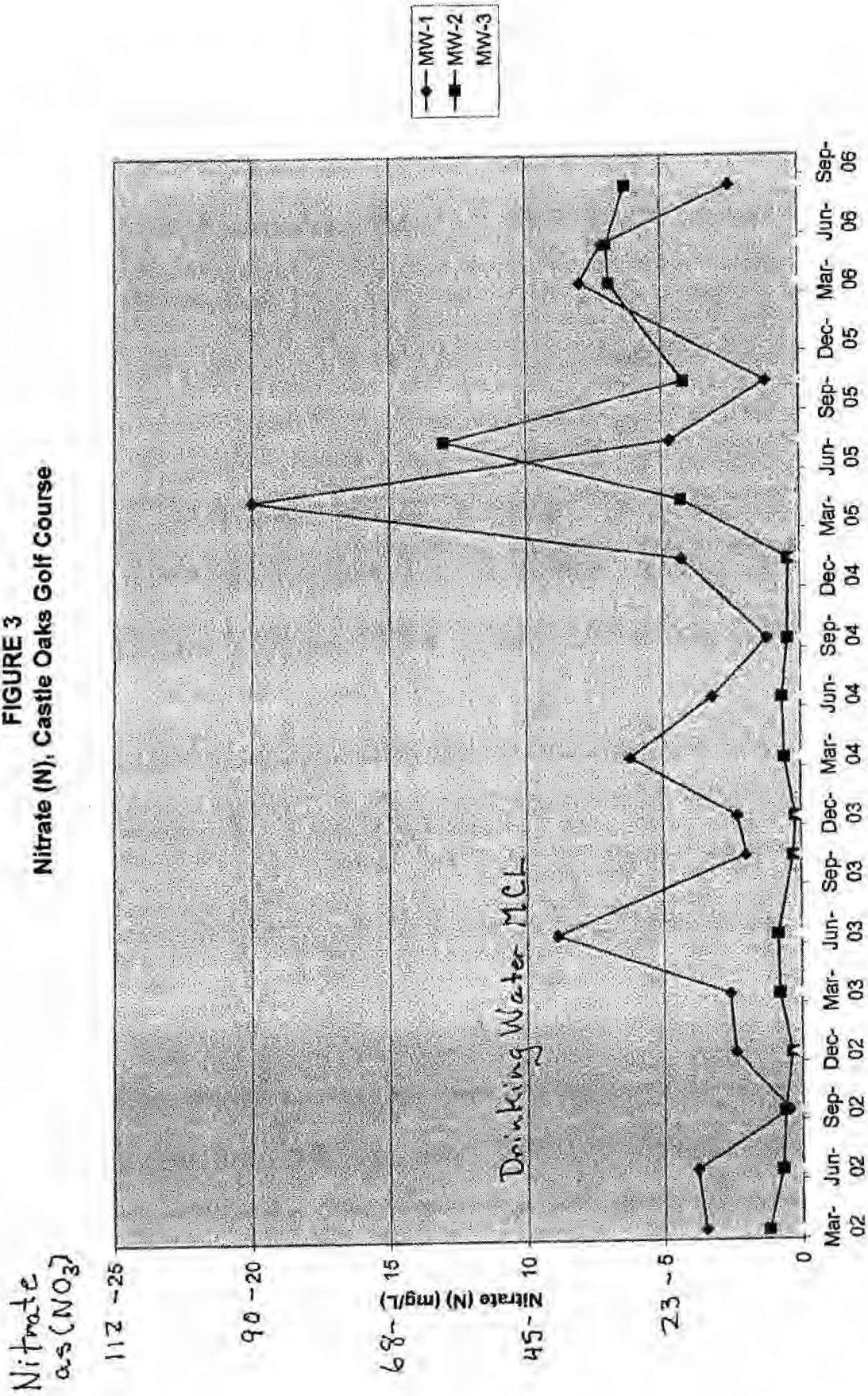


FIGURE 3
Nitrate (N), Castle Oaks Golf Course



APPENDIX I

Lab Data Reports

Samples: MCUSPI
MCDS1
HP1
HP2
CR1
CR2
FMD1
FMD2
WR1

3883 Ponderosa Road, Shingle Springs, CA 95682 Tel: (530) 677-5515 Fax: (530) 677-6645 E-mail: info@carlton-engineering.com

STRUCTURAL * CIVIL * LAND SURVEYING * GEOTECHNICAL * ENVIRONMENTAL

CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

October 18, 2006

CLS Work Order #: CPJ0392
COC #:

Mark Montgomery
Carlton Engineering, Inc.

3883 Ponderosa Road
Shingle Springs, CA 95682

Project Name: Mule Creek Water Quality Testing

Enclosed are the results of analyses for samples received by the laboratory on 10/10/06 17:40. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,



James Liang, Ph.D.
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

CALIFORNIA LABORATORY SERVICES

CHAIN OF CUSTODY

CLS ID, NO.

CP50392

Report To:				Client Job Number		PAGES: 1 of 1	
Carlton Engineering Inc.				5968-01-06		FIELD CONDITIONS:	
3932 Ponderosa Road				Destination Laboratory			
Shingle Springs, CA 95682				<input checked="" type="checkbox"/> CLS (916) 638-7301 3249 Fitzgerald Road Rancho Cordova, CA 95742 www.californialab.com		COMPOSITE:	
Project Manager - Mark Montgomery (530) 677-5515, (530) 672-7585 FAX							
Project Name Mule Creek Water Quality Testing							
Sample Mark Montgomery							
Job Description October 10, 2006 Sampling							
Site Location Amador County							
DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	NO.	TYPE	CONTAINER	
10/10/2006	10:30 A	HP1 - Howard Property	W	2	1L-P 500 ml 125	3	Ammonia as N
				1		4	Total/Fecal Coliform/E. coli
				1		3	General Minerals
							Phosphorus as P
10/10/2006	11:15 A	MEUSP1	W	2	1L-P 500 ml 125	3	Ammonia as N
				1		4	Total/Fecal Coliform/E. coli
				1		3	General Minerals
							Phosphorus as P
10/10/2006	12:00 N	MEUSP1	W	2	1L-P 500 ml 125	3	Ammonia as N
				1		4	Total/Fecal Coliform/E. coli
				1		3	General Minerals
							Phosphorus as P
10/10/2006			W	2	1L-P 500 ml 125	3	Ammonia as N
				1		4	Total/Fecal Coliform/E. coli
				1		3	General Minerals
							Phosphorus as P
10/10/2006			W	2	1L-P 500 ml 125	3	Ammonia as N
				1		4	Total/Fecal Coliform/E. coli
				1		3	General Minerals
							Phosphorus as P

SUSPECTED CONSTITUENTS	RELINQUISHED BY (Signature)	PRINT NAME/COMPANY	DATE/TIME	RECEIVED BY (Signature)	PRINT NAME/COMPANY
	Mark Montgomery	M. Montgomery/ Carlton	10/10/06 1700	Mark Montgomery	Mark Montgomery
RECEIVED AT LAB BY:	Mark Montgomery		DATE/TIME: 10-10-06 1700		
			10/10/06 1700		
CONDITIONS/COMMENTS: 4pc					

CALIFORNIA LABORATORY SERVICES

10/18/06 14:42

Carlton Engineering, Inc.
3883 Ponderosa Road
Shingle Springs, CA 95682

Project: Mule Creek Water Quality Testing
Project Number: 5968-01-06
Project Manager: Mark Montgomery
CLS Work Order #: CPJ0392
COC #:

Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
HP1-Howard Property (CPJ0392-01) Water Sampled: 10/10/06 10:30 Received: 10/10/06 17:40									
Total Alkalinity	65	5.0	mg/L	1	CP07910	10/12/06	10/12/06	EPA 310.1	
Bicarbonate as CaCO ₃	65	5.0	"	"	"	"	"	"	
Carbonate as CaCO ₃	ND	5.0	"	"	"	"	"	"	
Hydroxide as CaCO ₃	ND	5.0	"	"	"	"	"	"	
Ammonia as N	ND	0.10	"	"	CP07880	10/11/06	10/11/06	EPA 350.2	
Chloride	25	0.50	"	"	CP07842	10/11/06	10/11/06	EPA 300.0	
Fluoride	ND	0.10	"	"	"	"	"	"	
Nitrate as NO ₃	53	10	"	5	"	"	"	"	
Sulfate as SO ₄	45	2.5	"	"	"	"	"	"	
Specific Conductance (EC)	360	1.0	µmhos/cm	1	CP07881	10/11/06	10/11/06	EPA 120.1	
Methylene Blue Active Substances	ND	0.10	mg/L	"	CP07849	10/11/06	10/11/06	EPA 425.1	
Calcium	26	1.0	"	"	CP07879	10/11/06	10/11/06	200.7/2340B	
Magnesium	15	1.0	"	"	"	"	"	"	
Potassium	6.0	1.0	"	"	"	"	"	"	
Sodium	30	1.0	"	"	"	"	"	"	
Hardness as CaCO ₃	130	1.0	"	"	"	"	"	"	
pH	6.31	0.001	pH Units	"	CP07847	10/11/06	10/11/06	EPA 150.1	
Total Phosphorus as P	ND	0.050	mg/L	"	CP07915	10/12/06	10/12/06	EPA 365.2	
Total Dissolved Solids	240	10	"	"	CP07908	10/12/06	10/16/06	EPA 160.1	
MCUSP1 (CPJ0392-02) Water Sampled: 10/10/06 11:15 Received: 10/10/06 17:40									
Total Alkalinity	280	5.0	mg/L	1	CP07910	10/12/06	10/12/06	EPA 310.1	
Bicarbonate as CaCO ₃	280	5.0	"	"	"	"	"	"	
Carbonate as CaCO ₃	ND	5.0	"	"	"	"	"	"	
Hydroxide as CaCO ₃	ND	5.0	"	"	"	"	"	"	
Ammonia as N	0.32	0.10	"	"	CP07880	10/11/06	10/11/06	EPA 350.2	
Chloride	20	0.50	"	"	CP07842	10/11/06	10/12/06	EPA 300.0	
Fluoride	0.16	0.10	"	"	"	"	"	"	
Nitrate as NO ₃	ND	2.0	"	"	"	"	"	"	
Sulfate as SO ₄	ND	0.50	"	"	"	"	"	"	
Specific Conductance (EC)	530	1.0	µmhos/cm	"	CP07881	10/11/06	10/11/06	EPA 120.1	
Methylene Blue Active Substances	ND	0.10	mg/L	"	CP07849	10/11/06	10/11/06	EPA 425.1	
Calcium	44	1.0	"	"	CP07879	10/11/06	10/11/06	200.7/2340B	
Magnesium	41	1.0	"	"	"	"	"	"	
Potassium	2.6	1.0	"	"	"	"	"	"	
Sodium	24	1.0	"	"	"	"	"	"	
Hardness as CaCO ₃	280	1.0	"	"	"	"	"	"	
pH	7.80	0.001	pH Units	"	CP07847	10/11/06	10/11/06	EPA 150.1	
Total Phosphorus as P	ND	0.050	mg/L	"	CP07915	10/12/06	10/12/06	EPA 365.2	
Total Dissolved Solids	280	10	"	"	CP07908	10/12/06	10/16/06	EPA 160.1	

CA DOHS ELAP Accreditation/Registration Number 1233

3249 Fitzgerald Road Rancho Cordova, CA 95742

www.californialab.com

916-638-7301

Fax: 916-638-4510

CALIFORNIA LABORATORY SERVICES

10/18/06 14:42

Carlton Engineering, Inc.
3883 Ponderosa Road
Shingle Springs, CA 95682

Project: Mule Creek Water Quality Testing
Project Number: 5968-01-06
Project Manager: Mark Montgomery
CLS Work Order #: CPJ0392
COC #:

Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MCDS1 (CPJ0392-03) Water Sampled: 10/10/06 12:00 Received: 10/10/06 17:40									
Total Alkalinity	100	5.0	mg/L	1	CP07910	10/12/06	10/12/06	EPA 310.1	
Bicarbonate as CaCO ₃	100	5.0	"	"	"	"	"	"	
Carbonate as CaCO ₃	ND	5.0	"	"	"	"	"	"	
Hydroxide as CaCO ₃	ND	5.0	"	"	"	"	"	"	
Ammonia as N	0.28	0.10	"	"	CP07880	10/11/06	10/11/06	EPA 350.2	
Chloride	15	0.50	"	"	CP07842	10/11/06	10/12/06	EPA 300.0	
Fluoride	0.13	0.10	"	"	"	"	"	"	
Nitrate as NO ₃	ND	2.0	"	"	"	"	"	"	
Sulfate as SO ₄	41	0.50	"	"	"	"	"	"	
Specific Conductance (EC)	300	1.0	µmhos/cm	"	CP07881	10/11/06	10/11/06	EPA 120.1	
Methylene Blue Active Substances	0.12	0.10	mg/L	"	CP07849	10/11/06	10/11/06	EPA 425.1	
Calcium	35	1.0	"	"	CP07879	10/11/06	10/11/06	200.7/2340B	
Magnesium	9.5	1.0	"	"	"	"	"	"	
Potassium	3.3	1.0	"	"	"	"	"	"	
Sodium	19	1.0	"	"	"	"	"	"	
Hardness as CaCO ₃	130	1.0	"	"	"	"	"	"	
pH	7.39	0.001	pH Units	"	CP07847	10/11/06	10/11/06	EPA 150.1	
Total Phosphorus as P	0.59	0.050	mg/L	"	CP07915	10/12/06	10/12/06	EPA 365.2	
Total Dissolved Solids	180	10	"	"	CP07908	10/12/06	10/16/06	EPA 160.1	

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CALIFORNIA LABORATORY SERVICES

10/18/06 14:42

Carlton Engineering, Inc.
3883 Ponderosa Road
Shingle Springs, CA 95682

Project: Mule Creek Water Quality Testing
Project Number: 5968-01-06
Project Manager: Mark Montgomery

CLS Work Order #: CPJ0392

COC #:

Microbiological Parameters by APHA Standard Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
HP1-Howard Property (CPJ0392-01) Water Sampled: 10/10/06 10:30 Received: 10/10/06 17:40									
Total Coliforms	<1.8	1.8	MPN/100 mL	1	CP08018	10/10/06	10/12/06	SM 9221	
Fecal Coliforms	<1.8	1.8	"	"	"	"	"	"	
E. Coli	<1.8	1.8	"	"	"	"	"	"	
MCUSP1 (CPJ0392-02) Water Sampled: 10/10/06 11:15 Received: 10/10/06 17:40									
Total Coliforms	110	1.8	MPN/100 mL	1	CP08018	10/10/06	10/13/06	SM 9221	
Fecal Coliforms	49	1.8	"	"	"	"	"	"	
E. Coli	49	1.8	"	"	"	"	"	"	
MCDS1 (CPJ0392-03) Water Sampled: 10/10/06 12:00 Received: 10/10/06 17:40									
Total Coliforms	>1600	1.8	MPN/100 mL	1	CP08018	10/10/06	10/12/06	SM 9221	
Fecal Coliforms	170	1.8	"	"	"	"	"	"	
E. Coli	130	1.8	"	"	"	"	"	"	

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Fax: 916-638-4510

CALIFORNIA LABORATORY SERVICES

10/18/06 14:42

Carlton Engineering, Inc.
3883 Ponderosa Road
Shingle Springs, CA 95682

Project: Mule Creek Water Quality Testing
Project Number: 5968-01-06
Project Manager: Mark Montgomery
CLS Work Order #: CPJ0392
COC #:

Notes and Definitions

QM-5 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.

QM-4X The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.

BT-5 >1600

BT-4 <1.8

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

November 22, 2006

CLS Work Order #: CPK0636
COC #:

Mark Montgomery
Carlton Engineering, Inc.

3883 Ponderosa Road
Shingle Springs, CA 95682

Project Name: Mule Creek Water Quality Testing

Enclosed are the results of analyses for samples received by the laboratory on 11/15/06 16:45. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,



James Liang, Ph.D.
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

CALIFORNIA LABORATORY SERVICES

CHAIN OF CUSTODY

CLS ID. NO.

CPK0636

Report To:		Client Job Number		ANALYSIS REQUESTED		PAGES: 1 of 12	
Carlton Engineering Inc.		5968-01-06		FIELD CONDITIONS:			
3932 Ponderosa Road		Destination Laboratory					
Shingle Springs, CA 95682		X CLS (916) 638-7301 3249 Fitzgerald Road Rancho Cordova, CA 95742 www.californialab.com		COMPOSITE:			
Project Manager - Mark Montgomery (530) 677-5515, (530) 672-7585 FAX							
Project Name Mule Creek Water Quality Testing							
Sample Mark Montgomery							
Job Description November 15, 2006 Well Sampling							
Site Location Amador County							
DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	TYPE	TURNAROUND TIME IN DAYS	
11/15/2006	9:30A	CR1	W	2	IL-P 500 ml 125	1	2
11/15/2006	9:45A	CR2	W	2	IL-P 500 ml 125	1	2
11/15/2006	9A	FMD1	W	2	IL-P 500 ml 125	1	2
11/15/2006	10A	FMD2	W	2	IL-P 500 ml 125	1	2
11/15/2006	10:30A	WR1	W	2	IL-P 500 ml 125	1	2
SUSPECTED CONSTITUENTS						PRESERVATIVES (1) HCL (3) = COLD (2) HNO ₃ (4) = H2SO4	
RELINQUISHED BY (Signature)						PRINT NAME/COMPANY	
M. Montgomery						M. Montgomery/ Carlton	
RECEIVED AT LAB BY: J. SonR						DATE/TIME: 11-15-06 1645	
CONDITIONS/COMMENTS:						RECEIVED BY (Signature)	
						PRINT NAME/COMPANY	
						J. SonR	

CALIFORNIA LABORATORY SERVICES

CHAIN OF CUSTODY

CLS ID. NO.

Report To:

Client Job Number

PAGES: 2 of 2

Carlton Engineering Inc.

5968-01-06

3932 Ponderosa Road

Destination Laboratory

Shingle Springs, CA 95682

X CLS (916) 638-7301
 3249 Fitzgerald Road
 Rancho Cordova,
 CA 95742
 www.californialab.com

Project Manager - Mark Montgomery
(530) 677-5515, (530) 672-7585 FAX

Project Name

Mule Creek Water Quality Testing

Sample

Mark Montgomery

Job Description

November 15, 2006 Well Sampling

☐ OTHER

Site Location

Amador County

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX		CONTAINER	
			NO.	TYPE		
11/15/2006	1114	HP2	W	2	1L-P	
				1	500 ml	
				1	125	

Preservatives

Ammonia as N

Total/Fecal Coliform/E. coli

General Minerals

Phosphorus as P

ANALYSIS REQUESTED

FIELD CONDITIONS

COMPOSITE:

TURNAROUND
TIME IN DAYSSPECIAL
INSTRUCTIONS

1

2

5

10

X

SUSPECTED CONSTITUENTS

SAMPLE RETENTION TIME

PRESERVATIVES (1) HCL (2) HNO₃ (3) = COLD (4) = H2SO4

RELINQUISHED BY (Signature)

PRINT NAME/COMPANY

DATE/TIME

RECEIVED BY (Signature)

PRINT NAME/COMPANY

RECEIVED AT LAB BY:

CONDITIONS/COMMENTS:

DATE/TIME:

DATE/TIME:

CALIFORNIA LABORATORY SERVICES

11/22/06 14:05

Carlton Engineering, Inc.
3883 Ponderosa Road
Shingle Springs, CA 95682

Project: Mule Creek Water Quality Testing
Project Number: 5968-01-06
Project Manager: Mark Montgomery

CLS Work Order #: CPK0636

COC #:

Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
CR1 (CPK0636-01) Water Sampled: 11/15/06 09:30 Received: 11/15/06 16:45									
Total Alkalinity	130	5.0	mg/L	1	CP08878	11/16/06	11/16/06	EPA 310.1	
Bicarbonate as CaCO ₃	130	5.0	"	"	"	"	"	"	
Carbonate as CaCO ₃	ND	5.0	"	"	"	"	"	"	
Hydroxide as CaCO ₃	ND	5.0	"	"	"	"	"	"	
Ammonia as N	ND	0.10	"	"	CP08888	11/16/06	11/16/06	EPA 350.2	
Chloride	46	1.0	"	2	CP08857	11/16/06	11/18/06	EPA 300.0	
Fluoride	0.12	0.10	"	1	"	"	11/17/06	"	
Nitrate as NO ₃	69	4.0	"	2	"	"	11/18/06	"	HT-4
Sulfate as SO ₄	45	1.0	"	"	"	"	"	"	
Specific Conductance (EC)	600	1.0	µmhos/cm	1	CP08883	11/16/06	11/16/06	EPA 120.1	
Methylene Blue Active Substances	ND	0.10	mg/L	"	CP08938	11/17/06	11/17/06	EPA 425.1	
Calcium	36	1.0	"	"	CP08895	11/16/06	11/17/06	200.7/2340B	
Magnesium	36	1.0	"	"	"	"	"	"	
Potassium	ND	1.0	"	"	"	"	"	"	
Sodium	29	1.0	"	"	"	"	"	"	
Hardness as CaCO ₃	240	1.0	"	"	"	"	"	"	
pH	6.98	0.001	pH Units	"	CP08860	11/16/06	11/16/06	EPA 150.1	
Total Phosphorus as P	ND	0.050	mg/L	"	CP08880	11/16/06	11/16/06	EPA 365.2	
Total Dissolved Solids	320	10	"	"	CP08914	11/17/06	11/18/06	EPA 160.1	
CR2 (CPK0636-02) Water Sampled: 11/15/06 09:45 Received: 11/15/06 16:45									
Total Alkalinity	96	5.0	mg/L	1	CP08878	11/16/06	11/16/06	EPA 310.1	
Bicarbonate as CaCO ₃	96	5.0	"	"	"	"	"	"	
Carbonate as CaCO ₃	ND	5.0	"	"	"	"	"	"	
Hydroxide as CaCO ₃	ND	5.0	"	"	"	"	"	"	
Ammonia as N	ND	0.10	"	"	CP08888	11/16/06	11/16/06	EPA 350.2	
Chloride	27	0.50	"	"	CP08857	11/16/06	11/17/06	EPA 300.0	
Fluoride	0.13	0.10	"	"	"	"	"	"	
Nitrate as NO ₃	60	4.0	"	2	"	"	11/18/06	"	HT-4
Sulfate as SO ₄	35	0.50	"	1	"	"	11/17/06	"	
Specific Conductance (EC)	430	1.0	µmhos/cm	"	CP08883	11/16/06	11/16/06	EPA 120.1	
Methylene Blue Active Substances	ND	0.10	mg/L	"	CP08938	11/17/06	11/17/06	EPA 425.1	
Calcium	30	1.0	"	"	CP08895	11/16/06	11/17/06	200.7/2340B	
Magnesium	26	1.0	"	"	"	"	"	"	
Potassium	ND	1.0	"	"	"	"	"	"	
Sodium	19	1.0	"	"	"	"	"	"	
Hardness as CaCO ₃	180	1.0	"	"	"	"	"	"	
pH	6.48	0.001	pH Units	"	CP08860	11/16/06	11/16/06	EPA 150.1	
Total Phosphorus as P	ND	0.050	mg/L	"	CP08880	11/16/06	11/16/06	EPA 365.2	
Total Dissolved Solids	240	10	"	"	CP08914	11/17/06	11/18/06	EPA 160.1	

CA DOHS ELAP Accreditation/Registration Number 1233

3249 Fitzgerald Road Rancho Cordova, CA 95742

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Fax: 916-638-4510

CALIFORNIA LABORATORY SERVICES

11/22/06 14:05

Carlton Engineering, Inc.
3883 Ponderosa Road
Shingle Springs, CA 95682

Project: Mule Creek Water Quality Testing
Project Number: 5968-01-06
Project Manager: Mark Montgomery
CLS Work Order #: CPK0636
COC #:

Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FMD1 (CPK0636-03) Water Sampled: 11/15/06 09:00 Received: 11/15/06 16:45									
Total Alkalinity	170	5.0	mg/L	1	CP08878	11/16/06	11/16/06	EPA 310.1	
Bicarbonate as CaCO ₃	170	5.0	"	"	"	"	"	"	
Carbonate as CaCO ₃	ND	5.0	"	"	"	"	"	"	
Hydroxide as CaCO ₃	ND	5.0	"	"	"	"	"	"	
Ammonia as N	ND	0.10	"	"	CP08888	11/16/06	11/16/06	EPA 350.2	
Chloride	11	0.50	"	"	CP08857	11/16/06	11/17/06	EPA 300.0	
Fluoride	0.17	0.10	"	"	"	"	"	"	
Nitrate as NO ₃	3.7	2.0	"	"	"	"	"	"	
Sulfate as SO ₄	49	1.0	"	2	"	"	11/18/06	"	
Specific Conductance (EC)	450	1.0	µmhos/cm	1	CP08883	11/16/06	11/16/06	EPA 120.1	
Methylene Blue Active Substances	ND	0.10	mg/L	"	CP08938	11/17/06	11/17/06	EPA 425.1	
Calcium	39	1.0	"	"	CP08895	11/16/06	11/17/06	200.7/2340B	
Magnesium	26	1.0	"	"	"	"	"	"	
Potassium	1.0	1.0	"	"	"	"	"	"	
Sodium	21	1.0	"	"	"	"	"	"	
Hardness as CaCO ₃	200	1.0	"	"	"	"	"	"	
pH	6.77	0.001	pH Units	"	CP08860	11/16/06	11/16/06	EPA 150.1	
Total Phosphorus as P	0.065	0.050	mg/L	"	CP08880	11/16/06	11/16/06	EPA 365.2	
Total Dissolved Solids	270	10	"	"	CP08914	11/17/06	11/18/06	EPA 160.1	
FMD2 (CPK0636-04) Water Sampled: 11/15/06 10:00 Received: 11/15/06 16:45									
Total Alkalinity	160	5.0	mg/L	1	CP08878	11/16/06	11/16/06	EPA 310.1	
Bicarbonate as CaCO ₃	160	5.0	"	"	"	"	"	"	
Carbonate as CaCO ₃	ND	5.0	"	"	"	"	"	"	
Hydroxide as CaCO ₃	ND	5.0	"	"	"	"	"	"	
Ammonia as N	ND	0.10	"	"	CP08888	11/16/06	11/16/06	EPA 350.2	
Chloride	23	0.50	"	"	CP08857	11/16/06	11/17/06	EPA 300.0	
Fluoride	0.15	0.10	"	"	"	"	"	"	
Nitrate as NO ₃	17	2.0	"	"	"	"	"	"	
Sulfate as SO ₄	130	2.5	"	5	"	"	11/18/06	"	
Specific Conductance (EC)	620	1.0	µmhos/cm	1	CP08883	11/16/06	11/16/06	EPA 120.1	
Methylene Blue Active Substances	ND	0.10	mg/L	"	CP08938	11/17/06	11/17/06	EPA 425.1	
Calcium	60	1.0	"	"	CP08895	11/16/06	11/17/06	200.7/2340B	
Magnesium	31	1.0	"	"	"	"	"	"	
Potassium	ND	1.0	"	"	"	"	"	"	
Sodium	34	1.0	"	"	"	"	"	"	
Hardness as CaCO ₃	280	1.0	"	"	"	"	"	"	
pH	6.96	0.001	pH Units	"	CP08860	11/16/06	11/16/06	EPA 150.1	
Total Phosphorus as P	ND	0.050	mg/L	"	CP08880	11/16/06	11/16/06	EPA 365.2	
Total Dissolved Solids	390	10	"	"	CP08914	11/17/06	11/18/06	EPA 160.1	

CA DOHS ELAP Accreditation/Registration Number 1233

3249 Fitzgerald Road Rancho Cordova, CA 95742 www.californialab.com 916-638-7301 Fax: 916-638-4510

CALIFORNIA LABORATORY SERVICES

11/22/06 14:05

Carlton Engineering, Inc.
3883 Ponderosa Road
Shingle Springs, CA 95682

Project: Mule Creek Water Quality Testing
Project Number: 5968-01-06
Project Manager: Mark Montgomery
CLS Work Order #: CPK0636
COC #:

Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
WR1 (CPK0636-05) Water Sampled: 11/15/06 10:30 Received: 11/15/06 16:45									
Total Alkalinity	170	5.0	mg/L	1	CP08878	11/16/06	11/16/06	EPA 310.1	
Bicarbonate as CaCO ₃	170	5.0	"	"	"	"	"	"	
Carbonate as CaCO ₃	ND	5.0	"	"	"	"	"	"	
Hydroxide as CaCO ₃	ND	5.0	"	"	"	"	"	"	
Ammonia as N	ND	0.10	"	"	CP08888	11/16/06	11/16/06	EPA 350.2	
Chloride	7.3	0.50	"	"	CP08857	11/16/06	11/17/06	EPA 300.0	
Fluoride	0.17	0.10	"	"	"	"	"	"	
Nitrate as NO ₃	20	2.0	"	"	"	"	"	"	
Sulfate as SO ₄	73	2.5	"	5	"	"	11/18/06	"	
Specific Conductance (EC)	490	1.0	µmhos/cm	1	CP08883	11/16/06	11/16/06	EPA 120.1	
Methylene Blue Active Substances	ND	0.10	mg/L	"	CP08938	11/17/06	11/17/06	EPA 425.1	
Calcium	57	1.0	"	"	CP08895	11/16/06	11/17/06	200.7/2340B	
Magnesium	26	1.0	"	"	"	"	"	"	
Potassium	ND	1.0	"	"	"	"	"	"	
Sodium	14	1.0	"	"	"	"	"	"	
Hardness as CaCO ₃	250	1.0	"	"	"	"	"	"	
pH	6.89	0.001	pH Units	"	CP08860	11/16/06	11/16/06	EPA 150.1	
Total Phosphorus as P	ND	0.050	mg/L	"	CP08880	11/16/06	11/16/06	EPA 365.2	
Total Dissolved Solids	300	10	"	"	CP08914	11/17/06	11/18/06	EPA 160.1	
HP2 (CPK0636-06) Water Sampled: 11/15/06 11:00 Received: 11/15/06 16:45									
Total Alkalinity	60	5.0	mg/L	1	CP08878	11/16/06	11/16/06	EPA 310.1	
Bicarbonate as CaCO ₃	60	5.0	"	"	"	"	"	"	
Carbonate as CaCO ₃	ND	5.0	"	"	"	"	"	"	
Hydroxide as CaCO ₃	ND	5.0	"	"	"	"	"	"	
Ammonia as N	ND	0.10	"	"	CP08888	11/16/06	11/16/06	EPA 350.2	
Chloride	23	0.50	"	"	CP08857	11/16/06	11/17/06	EPA 300.0	
Fluoride	ND	0.10	"	"	"	"	"	"	
Nitrate as NO ₃	53	4.0	"	2	"	"	11/18/06	"	HT-4
Sulfate as SO ₄	48	1.0	"	"	"	"	"	"	
Specific Conductance (EC)	360	1.0	µmhos/cm	1	CP08883	11/16/06	11/16/06	EPA 120.1	
Methylene Blue Active Substances	ND	0.10	mg/L	"	CP08938	11/17/06	11/17/06	EPA 425.1	
Calcium	25	1.0	"	"	CP08895	11/16/06	11/17/06	200.7/2340B	
Magnesium	14	1.0	"	"	"	"	"	"	
Potassium	5.6	1.0	"	"	"	"	"	"	
Sodium	28	1.0	"	"	"	"	"	"	
Hardness as CaCO ₃	120	1.0	"	"	"	"	"	"	
pH	6.35	0.001	pH Units	"	CP08860	11/16/06	11/16/06	EPA 150.1	
Total Phosphorus as P	ND	0.050	mg/L	"	CP08880	11/16/06	11/16/06	EPA 365.2	
Total Dissolved Solids	240	10	"	"	CP08914	11/17/06	11/18/06	EPA 160.1	

CA DOHS ELAP Accreditation/Registration Number 1233

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Fax: 916-638-4510

CALIFORNIA LABORATORY SERVICES

11/22/06 14:05

Carlton Engineering, Inc.
3883 Ponderosa Road
Shingle Springs, CA 95682

Project: Mule Creek Water Quality Testing
Project Number: 5968-01-06
Project Manager: Mark Montgomery
CLS Work Order #: CPK0636
COC #:

Microbiological Parameters by APHA Standard Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
CR1 (CPK0636-01) Water Sampled: 11/15/06 09:30 Received: 11/15/06 16:45									
Total Coliforms	350	1.8	MPN/100 mL	1	CP09026	11/15/06	11/18/06	SM 9221	HT-2
Fecal Coliforms	<1.8	1.8	"	"	"	"	"	"	HT-2
E. Coli	<1.8	1.8	"	"	"	"	"	"	HT-2
CR2 (CPK0636-02) Water Sampled: 11/15/06 09:45 Received: 11/15/06 16:45									
Total Coliforms	<1.8	1.8	MPN/100 mL	1	CP09026	11/15/06	11/19/06	SM 9221	HT-2
Fecal Coliforms	<1.8	1.8	"	"	"	"	"	"	HT-2
E. Coli	<1.8	1.8	"	"	"	"	"	"	HT-1
FMD1 (CPK0636-03) Water Sampled: 11/15/06 09:00 Received: 11/15/06 16:45									
Total Coliforms	<1.8	1.8	MPN/100 mL	1	CP09026	11/15/06	11/19/06	SM 9221	HT-1
Fecal Coliforms	<1.8	1.8	"	"	"	"	"	"	HT-1
E. Coli	<1.8	1.8	"	"	"	"	"	"	HT-2
FMD2 (CPK0636-04) Water Sampled: 11/15/06 10:00 Received: 11/15/06 16:45									
Total Coliforms	33	1.8	MPN/100 mL	1	CP09026	11/15/06	11/18/06	SM 9221	HT-1
Fecal Coliforms	<1.8	1.8	"	"	"	"	"	"	HT-1
E. Coli	<1.8	1.8	"	"	"	"	"	"	HT-1
WR1 (CPK0636-05) Water Sampled: 11/15/06 10:30 Received: 11/15/06 16:45									
Total Coliforms	<1.8	1.8	MPN/100 mL	1	CP09026	11/15/06	11/17/06	SM 9221	
Fecal Coliforms	<1.8	1.8	"	"	"	"	"	"	
E. Coli	<1.8	1.8	"	"	"	"	"	"	
HP2 (CPK0636-06) Water Sampled: 11/15/06 11:00 Received: 11/15/06 16:45									
Total Coliforms	<1.8	1.8	MPN/100 mL	1	CP09026	11/15/06	11/19/06	SM 9221	
Fecal Coliforms	<1.8	1.8	"	"	"	"	11/19/06	"	
E. Coli	<1.8	1.8	"	"	"	"	"	"	

CA DOHS ELAP Accreditation/Registration Number 1233

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Fax: 916-638-4510

CALIFORNIA LABORATORY SERVICES

11/22/06 14:05

Carlton Engineering, Inc.
3883 Ponderosa Road
Shingle Springs, CA 95682

Project: Mule Creek Water Quality Testing
Project Number: 5968-01-06
Project Manager: Mark Montgomery
CLS Work Order #: CPK0636
COC #:

Notes and Definitions

QM-4X The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.

HT-4 Sample was originally analyzed within holding time. Due to high concentration of the analyte, the sample was reanalyzed with a dilution.

HT-2 This sample was extracted/analyzed outside the EPA recommended holding time.

HT-1 The sample was received outside of the EPA recommended holding time.

BT-4 <1.8

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

APPENDIX 2

Lab Data Reports

Samples: ACEH1
 ACEH2
 ACEH3
 ACEH4

Sierra Foothill Lab WebLDS**ACEH Amador Co Env Health
Sample: 608946**

ACEH I

eMail: Fees COC Acknowledge**Sample: 608946 POND U.S. G WW 824161****Project: 138751 Matrix: Liquid****Taken: 09/21/2006 1310 MWI****Received: 09/21/2006 Mailed: No**

Parameter	Test Name	Results	Units	Report Level	Method Name	Verified	Site	Test
Cl	Chloride	15	mg/L	0.50	EPA300.0/SM4110B	Y		
FC20	Fecal Coliform Bacte	40	#/100ml	2	SM9221E	Y		
MBAS	Foaming Agents (MBAS)	<0.10	mg/L	0.10	EPA425.1/SM5540C	Y		
NO3	Nitrogen, Total Nitr	<0.050	mg/L	0.050	EPA300.0/SM4110B	Y		
TDS	Solids, Total Dissol	310	mg/L	10	EPA160.1/SM2540C	825		
tc20	Total Coliform Bacte	1700	#/100ml	2	SM9221B	Y		

Entrance**Sierra Foothill Lab, Inc.****P.O. Box 1268****255 Scottsville Blvd.****Jackson, CA 95642****209/223-2800 Fax 209/223-2747*****Please contact us at sandy@sierrafoothilllab.com******Modified 05/2002 B.Peery, T. Nurse, S.Nurse***

Sierra Foothill Lab WebLDS

**ACEH Amador Co Env Health
Sample: 608759**

ACEH 2

eMail: Project Sample Fees COC Acknowledge

Sample: 608759 MULE CREEK @ HWY 104 G W 824166

Project: 138656 FAX REPORT TO MIKE ISRAEL ASAP. Matrix: *Liquid*

Taken: 09/19/2006 1550 MWI

Received: 09/19/2006 Mailed: 09/26/2006

Parameter	Test Name	Results	Units	Report Level	Method Name	Verified	Site	Test
Cl	Chloride	10	mg/L	0.50	EPA300.0/SM4110B	Y		
FC20	Fecal Coliform Bacte	30	#/100ml	2	SM9221E	Y		
MBAS	Foaming Agents (MBAS	<0.10	mg/L	0.10	EPA425.1/SM5540C	Y		
NO3	Nitrogen, Total Nitr	<0.050	mg/L	0.050	EPA300.0/SM4110B	Y		
TDS	Solids, Total Dissol	180	mg/L	10	EPA160.1/SM2540C	Y		
tc20	Total Coliform Bacte	5000	#/100ml	2	SM9221B	Y		

Entrance

Sierra Foothill Lab, Inc.

P.O. Box 1268

255 Scottsville Blvd.

Jackson, CA 95642

209/223-2800 Fax 209/223-2747

Please contact us at sandy@sierrafoothilllab.com

Modified 05/2002 B.Peery, T. Nurse, S.Nurse

Sierra Foothill Lab WebLDS

ACEH Amador Co Env Health Sample: 608945

ACEH3

eMail: Fees COC Acknowledge

Sample: 608945 MULE CRK @ UPSTREAM EDGE SPRFD G WW 824162

Project: 138751 FAX REPORT TO MIKE ISRAEL ASAP Matrix: *Liquid*

Taken: 09/21/2006 1250 MWI

Received: 09/21/2006 Mailed: No

Parameter	Test Name	Results	Units	Report Level	Method Name	Verified	Site	Test
Cl	Chloride	79	mg/L	0.50	EPA300.0/SM4110B	Y		
FC20	Fecal Coliform Bacte	3000	#/100ml	2	SM9221E	Y		
MBAS	Foaming Agents (MBAS	<0.10	mg/L	0.10	EPA425.1/SM5540C	Y		
NO3	Nitrogen, Total Nitr	0.38	mg/L	0.050	EPA300.0/SM4110B	Y		
TDS	Solids, Total Dissol	278	mg/L	10	EPA160.1/SM2540C	825		
tc20	Total Coliform Bacte	24000+	#/100ml	2	SM9221B	Y		

Entrance

Sierra Foothill Lab, Inc.
P.O. Box 1268
255 Scottsville Blvd.
Jackson, CA 95642
209/223-2800 Fax 209/223-2747

Please contact us at sandy@sierrafoothilllab.com

Modified 05/2002 B.Peery, T. Nurse, S.Nurse

Sierra Foothill Laboratory, Inc.255 Scottsville Blvd
PO Box 1268
Jackson, CA 95642Phone 209/223-2800
Fax 209/223-2747
Email info@sierralab.com

LAB # _____

SIERRA FOOTHILL LABORATORYP.O. Box 1268 • 255 Scottsville Blvd.
Jackson, CA 95642
(209) 223-2800DATE RECEIVED: 9/21/06

TIME RECEIVED: _____

CUSTOMER NAME: ACEH

BILL TO: _____

ADDRESS: _____

ADDRESS: _____

CITY, STATE, ZIP: _____

CITY, STATE, ZIP: _____

ATTENTION: _____

ATTENTION: _____

PREPAID: _____ CHECK/RECEIPT #: _____

P.O. #: _____ REQUISITION #: _____

ID #	SOURCE DESCRIPTION	ANALYSIS	SAMPLING & CONTAINER INFORMATION:				
			G/C	W, WW, S	P/G	DATE/HR COLLECTED	BY
608945-01 824163	MILL CREEK UPSTREAM FROM OF STONY FIELD	TC20	G	WW	P	9/21/06 12:50	mwz
02	✓	NH4S, NO3, TDS 01	G	WW	P	9/21/06 12:50	mwz
608946-01 824101	POND U.S.	TC20	G	WW	P	9/21/06 13:10	mwz
02	✓	NH4S, TDS, NO3, 01	G	WW	P	9/21/06 13:10	mwz
2500 100 mg							

RELINQUISHED BY: Michael W. JorgDATE/TIME: 9/21/06 14:00RECEIVED BY: Jana R. RobertsDATE/TIME: 9/21/06

RELINQUISHED BY: _____

DATE/TIME: _____

RECEIVED BY: _____

DATE/TIME: _____

DATA ENTERED: tbDate: 9/21/06 Time: _____

COC FORMS

Sierra Foothill Lab WebLDS

ACEH Amador Co Env Health
Sample: 610394

ACEH 4

eMail: Fees COC Acknowledge

Sample: 610394 UN-NAMED CREEK S. OF HWY. 104 G W 726186

Project: 139618 Matrix: Liquid

Taken: 10/16/2006 1500 LS

Received: 10/16/2006 Mailed: No

Parameter	Test Name	Results	Units	Report Level	Method Name	Verified	Site	Test
200M	Digestion ICP metals	10-20-2006	ml/ml		EPA200.2	Y		
303E	Nitric Acid Digestio	100/100	ml/ml		SM3030E	Y		
Agi	Silver, ICP				EPA200.7/SM3120B			
Ali	Aluminum, ICP				EPA200.7/SM3120B			
Alk	Alkalinity, Total	63	mg/L	5.0	EPA310.1/SM2320B	Y		
AlkB	Alkalinity, Bicarbon	63	mg/L	5.0	EPA310.1/SM2320B	Y		
AlkC	Alkalinity, Carbonat	<5.0	mg/L	5.0	EPA310.1/SM2320B	Y		
AlkO	Alkalinity, Hydroxid	<5.0	mg/L	5.0	EPA310.1/SM2320B	Y		
CAB	Cation/Anion Balance							
Ca	Calcium, Titrimetric				EPA215.2/SM3500Ca-D			
Cl	Chloride	8.7	mg/L	0.50	EPA300.0/SM4110B	Y		
Col	Color	72	unit	3	EPA110.2/SM2120B	Y		
Corr	Corrosivity, Langel				SM2330B			
CuF	Copper, FAA	<0.05	mg/L	0.050	EPA220.1/SM3111B	Y		
EC	Specific Conductance	177	umho/cm	1.00	EPA120.1/SM2510B	Y		
FC15	Fecal Coliform	500	#/100ml	2	SM9221E	Y		

	Bacte							
FeF	Iron, FAA	0.94	mg/L	0.050	EPA236.1/SM3111B	Y		
GM22	Title 22 General Min	By SFL	Date	DLR		Y		
Hard	Hardness				EPA130.2/SM2340C			
MBAS	Foaming Agents (MBAS	<0.1	mg/L	0.10	EPA425.1/SM5540C	Y		
Mg	Magnesium, Calculati				SM3500Mg-E			
MnF	Manganese, FAA	0.056	mg/L	0.020	EPA243.1/SM3111B	Y		
NH3	Nitrogen, Ammonia-N	<0.50	mg/L	0.50	EPA350.2/SM4500NH3C	Y		
NaF	Sodium, FAA	9.3	mg/L	0.10	EPA273.1/SM3111B	Y		
Odor	Odor	1.4	unit	1.0	SM2150B	Y		
SO4	Sulfate	6.7	mg/L	0.50	EPA300.0/SM4110B	Y		
TDS	Solids, Total Dissol	103	mg/L	10	EPA160.1/SM2540C	Y		
TPO4	Phosphate, Total-P	0.16	mg/L	0.050	EPA365.2/SM4500-P E	Y		
TURB	Turbidity	6.8	NTU	0.10	EPA180.1/SM2130B	Y		
TURM	Turbidity Screening	4.8	NTU	0.10	EPA180.1	Y		
Zni	Zinc, ICP				EPA200.7/SM3120B			
pH	pH, Lab*	7.7	unit	0.1	EPA150.1/SM4500-H+B	Y		
tc15	Total Coliform Bacte	2400+	#/100ml	2	SM9221B	Y		

Entrance

Sierra Foothill Lab, Inc.
P.O. Box 1268
255 Scottsville Blvd.
Jackson, CA 95642
209/223-2800 Fax 209/223-2747

Please contact us at sandy@sierrafoothilllab.com

APPENDIX 3

Mule Creek State Prison
Letter, September 28, 2000

3883 Ponderosa Road, Shingle Springs, CA 95682 Tel: (530) 677-5515 Fax: (530) 677-6645 E-mail: info@carlton-engineering.com

STRUCTURAL * CIVIL * LAND SURVEYING * GEOTECHNICAL * ENVIRONMENTAL



Mule Creek State Prison

Plant Operations Department
4001 Highway 104 • Post Office Box 409099 • Ione, California 95640
Telephone (209) 274-5935 • Fax (209) 274-5215

September 28, 2000

California Regional Water Quality Control Board
3443 Rottier Road, Suite A
Sacramento, CA 95827-3003
Attn: Alex Baillie

DISCHARGE OF RECLAIMED WATER

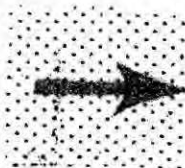
On this date at approximately 0615 hours, the effluent wet well overflowed as a result of mechanical failure. The effluent pumps failed to start due to a faulty compressor that supplies control air to the level controller. Approximately 20,000 gallons of treated effluent (Reclaimed Water) was discharged into a dry tributary leading to Mule Creek. Institutional staff responded at approximately 0650 hours and spill procedures were put into effect. The effluent pumps were put on manual operation, and immediate measures were taken to contain the discharge to Mule Creek State Prison property. No effluent entered Mule Creek proper. Samples were taken of the discharge and the test results are attached.

Mule Creek State Prison is conducting a review of this discharge to see if any modifications can be made to prevent any further occurrences. You will be advised of any changes to the plant or operational procedures.

If you need any further information or clarification, please contact me at (209) 274-5935.

TONY BUTLER
Correctional Plant Manager (A)
Mule Creek State Prison

Cc: Associate Warden
Business Services Division



Tim R. Hall, R.E.H.S.
Amador County Environmental Health Department

**MULE CREEK STATE PRISON
TEST RESULTS OF EFFLUENT WATER
OCTOBER 4, 2000**

Free Chlorine Residual	12.9 mg/l
Turbidity NTU	3.83
Nitrate ION	53.6 mg/l
Nitrate-Nitrogen	12.1 mg/l
Nitrite ION	2 mg/l
Nitrite-Nitrogen	0.64 mg/l
PH	7.6 units
Settleable Solids	<0.1 ml/l

EXHIBIT “2”

BEFORE THE BOARD OF SUPERVISORS

COUNTY OF AMADOR, STATE OF CALIFORNIA

RESOLUTION ESTABLISHING THE)	RESOLUTION NO. 07-163
AMADOR COUNTY SAFE DRINKING)	
WATER PROGRAM – A LOAN AND)	
GRANT PROGRAM ADDRESSING THE)	
PROBLEM OF CONTAMINATED)	
GROUNDWATER IN THE VICINITY OF)	
MULE CREEK STATE PRISON)	

WHEREAS, the testing of certain domestic water wells in the immediate vicinity of Mule Creek State Prison has indicated the presence of nitrate at levels exceeding the maximum contaminant level for safe drinking water; and

WHEREAS, nitrate is known to be acutely toxic, and as such adverse health effects can develop after short-term exposure over minutes or days, and Title 22, Section 64465-D of the California Code of Regulations requires that the following notification be made if a public water system exceeds the maximum contaminant level for nitrate:

Infants below the age of six months who drink water containing nitrate in excess of the MCL may quickly become seriously ill and, if untreated, may die because high nitrate levels can interfere with the capacity of the infant's blood to carry oxygen. Symptoms include shortness of breath and blueness of the skin. High nitrate levels may also affect the oxygen-carrying capabilities of the blood of pregnant women;

and

WHEREAS, the Amador County Environmental Health Department has expressed concerns for the well-being of county residents relying on well water for their primary water needs where testing has indicated that that well water exceeds the maximum contaminant level for nitrate; and

WHEREAS, except for certain wells in the immediate vicinity of Mule Creek State Prison, no other wells in Amador County are known to exceed the maximum contaminant level for nitrate; and

WHEREAS, the testing of groundwater in the vicinity of Mule Creek State prison also indicated the presence of volatile organic compounds ("VOC's"), that although not exceeding the maximum contaminant level, could pose some health risk. Certain of these VOC's do not occur naturally in the environment and necessarily originate from human activity; and

WHEREAS, evidence indicates that Mule Creek State Prison is the likely source of the contamination in this area, but unfortunately, as of this date, Mule Creek State Prison has not provided the owners of properties with domestic wells exceeding the maximum contaminant level

for nitrate with a viable, long-term alternative to the acutely toxic groundwater, such as a connection to the public water system; and

WHEREAS, the cost of a connection the to the public water system, which can run in the tens of thousands of dollars, may be prohibitive for owners and/or residents with a well or wells used for providing drinking water that are contaminated with nitrate exceeding the maximum contaminant level; and

WHEREAS, Government Code Section 26227 authorizes the Board of Supervisors to expend money deemed by the Board necessary to meet the social needs of the population of the county, including health; and

WHEREAS, the Board of Supervisors recognizes that groundwater contaminated with nitrate exceeding the maximum contaminant level constitutes an immediate health risk to the citizens of Amador County and as such taking steps to eliminate the health risks associated with drinking such contaminated groundwater serves a legitimate public purpose; and

WHEREAS, the County has limited funds available that could be used for the purpose of helping to alleviate the immediate and severe health risk associated with drinking groundwater that has been contaminated with nitrate exceeding the maximum contaminant level by providing loans or grant funds to property owners to connect to the public water system. These funds are comprised of excess Community Development Block Grant funds; and

WHEREAS, although these funds are no longer subject to requirements for expenditure of Community Development Block Grant funds, the Board intends that these funds continue to be used to assist the most vulnerable citizens in the county;

BE IT RESOLVED by the Board of Supervisors of the County of Amador, State of California, as follows:

1. The Board hereby establishes a program to provide loans or grant funds to eligible property owners to cover all or a portion of the cost of connecting residences or businesses on properties served by wells providing drinking water that exceed the maximum contaminant level for nitrate to the community water system. This program shall be known and the "Amador Safe Drinking Water Program."

2. In order to qualify for participation in the loan or grant program, the following criteria must be met:

- a) The property at issue must be within a one mile radius of Mule Creek State Prison, APN 004-290-005-000; and
- b) There must be documented water samples from a well on the property that exceeds the maximum contaminant level for nitrate, currently 45 milligrams per liter; and

- c) There must be a residence or business located on the property that uses the well documented as exceeding the maximum contaminant level for nitrate as a source of drinking water; and
- d) The property owner receiving funds from the Program must agree in writing that if Mule Creek State Prison, or anyone on its behalf, provides any compensation related to the groundwater contamination, the amount of the grant will be repaid to the County. In no event shall the owner be responsible for repayment of grant funds in excess of any amount paid by Mule Creek State Prison or anyone acting on its behalf.

3. Funding for the Amador Safe Drinking Water Program shall come from excess Community Development Block Grant funds or from repayment of any grants or loans made for such purpose.

4. The County Administrative Officer is directed to develop policies and procedures consistent with this resolution necessary to implement this Program and further, because of the potential risk to the health of the citizens of Amador County, the necessary policies and procedures should be developed and implements as soon as possible. The Board, in its discretion may allocate a grant or loan consistent with this Resolution pending the adoption of policies or procedures if necessary to protect public health or safety.

The foregoing resolution was duly passed and adopted by the Board of Supervisors of the County of Amador at a regular meeting thereof, held on the 7th day of August 2007, by the following vote:

AYES: Louis D. Boitano, Rich F. Escamilla, Richard M. Forster, Brian Oneto, and Theodore Novelli

NOES: None

VACANT: None


Chairman, Board of Supervisors

ATTEST:

JENNIFER BURNS, Clerk of the
Board of Supervisors, Amador County, California

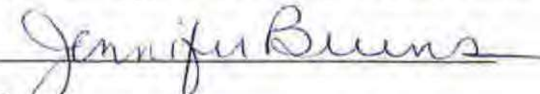

Deputy

EXHIBIT “3”

CONSTRUCTION CONTRACT

THIS CONSTRUCTION CONTRACT is made this 6 day of SEPT, 2007, by and between Rocklin Costa ("Owner"), and JTS Communities, Inc., a California corporation whose place of business is at 401 Watt Avenue, Sacramento, California ("Contractor").

WHEREAS, Owner desires to connect his residence, located at 10951 Collins Road, Ione, California 95640, to the public water system; and

WHEREAS, Owner is a recipient of grant funds from the County of Amador ("County") under the Amador County Safe Drinking Water Program, which provides funds to cover the cost of connecting residences or businesses on properties served by wells providing drinking water that exceed the maximum contaminant level for nitrate to the community water system; and

WHEREAS, Contractor warrants that it (and/or its agents or contractors) has the expertise to perform the work upon the terms and conditions set forth in this Agreement and holds all necessary licenses to practice and perform the work described in this agreement; and

WHEREAS, Owner desires to engage Contractor and Contractor desires to be hired by Owner to perform this work upon the terms and conditions set forth in this Agreement.

NOW THEREFORE, in consideration of the mutual covenants hereinafter set forth, Owner and Contractor and agree as follows:

Article I. The Work

- 1.1 Contractor shall provide, furnish and perform all necessary permitting and support services, construction, clean-up, and all other services of any type, provide and furnish all necessary supplies, materials and equipment and all necessary supervision, labor, and services required for the complete construction and all necessary installation, start-up and testing required for Construction of the New Water Service Hookup for Owner's residence located at 10951 Collins Road, Ione, California 95640 as set forth on **Attachment A**, attached to this Contract and incorporated herein (hereinafter, the all-inclusive obligations of Contractor (including Contractor's agents or contractors) set forth in this sentence shall be referred to as the "Work").
- 1.2 Contractor has reviewed description of the Work and represents that:
 - a) The Work will be constructed in accordance with all applicable state, county, and municipal laws, codes, and regulations, including but not limited to, all applicable building codes; and
 - b) The description of the Work is sufficiently complete and detailed to permit Contractor to perform the entire Work for the Contract Price (defined below).

Article II. Contract Time

- 2.1 Contractor shall begin the Work within **ten (10)** working days after this Agreement has been executed by all parties, and shall diligently prosecute the Work to completion.

- 2.2 Contractor shall carry out the Work at all times with the greatest possible dispatch and complete the entire Work under this Contract.

Article III. Contract Price

- 3.1 Owner shall pay Contractor for performance of the Work in accordance with the Task List set forth on Attachment A. In no event shall compensation for completion of the Work exceed **Eighteen Thousand Eight Hundred Thirty Dollars and zero Cents (\$18,830.00)** ("Contract Price").
- 3.2 The Contract Price is all inclusive and includes all Work; all federal, state, and local taxes on materials and equipment, and labor furnished by Contractor, its subcontractors, subconsultants, architects, engineers, and vendors or otherwise arising out of Contractor's performance of the Work, including any increases in any such taxes during the term of this Contract; and any duties, fees, and royalties imposed with respect to any materials and equipment, labor or services. The taxes covered hereby include (but are not limited to) occupational, sales, use, excise, unemployment, FICA, and income taxes, customs, duties, and any and all other taxes on any item or service that is part of the Work, whether such taxes are normally included in the price of such item or service or are normally stated separately. Notwithstanding the foregoing, payment of any permit fees, inspection fees, and/or participation fees ("Fees") charged by any public entity or agency with authority over the Work shall be the responsibility of Owner. Further, each party shall bear such state or local inventory, real property, personal property or fixtures taxes as may be properly assessed against it by applicable taxing authorities. No payment at premium rates for overtime, Sunday, or holiday work shall be included in Contractor's bills.
- 3.3 Owner is a recipient of grant funds from the County that will cover the cost of the Work. County shall disburse Owner's grant funds as follows:
- a) County shall disburse funds to pay Fees charged by any public entity or agency in connection with the Work. Disbursement of said funds shall be made directly to the entity or agency charging the Fee. Contractor shall notify the County of the Fees required in connection with the Work and the respective entities or agencies.
 - b) Upon completion of the Work, Contractor shall submit an invoice to County detailing the cost for completion of each principal category of the Work. Compensation to Contractor shall be paid on a **time-and-materials basis, with a cost-not-to-exceed limit of \$18,830.00.**
 - c) County shall disburse the payment to Contractor under this Contract after completion and final acceptance of all Work by Owner.

Article IV. Contractor's Representations and Warranties

In order to induce Owner to enter into this Contract, Contractor makes the following representations and warranties:

- 4.1 Contractor has visited the sites and has examined thoroughly and understood the nature and extent of the Work, locality, actual conditions, as built conditions, and all local conditions and federal, state and local laws and regulations that in any manner may affect cost, progress, performance or furnishing of Work or which relate to any aspect of the design and the means,

methods, techniques, sequences or procedures of construction to be employed by Contractor and safety precautions and programs incident thereto.

- 4.2 Contractor has considered the physical conditions at or contiguous to the sites or otherwise that may affect the cost, progress, performance or furnishing of the Work, as Contractor considers necessary for the performance or furnishing of the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of Contract Documents.

Article V. Warranty of the Work

Contractor guarantees that the Work will be free from faulty materials or workmanship. Upon receiving written notification from Owner or County, Contractor agrees to remedy, repair, or replace, immediately, without cost to Owner, all defects or damages appearing in the work caused by Contractor or its agents or contractor within a period of twelve (12) months after the date of final completion of the Work. Contractor is not responsible for defects or damages not caused by its contractor or agents. Contractor will continuously clean the jobsite and grounds around the jobsite, and keep it in a safe, orderly, and neat condition. At the completion of the Work, the jobsite will be left in a broom-clean condition.

Article VI. Insurance

- 6.1 Contractor shall take out and maintain at all times during the performance of any work to be done under the terms of this Agreement, a policy or policies of insurance as follows:
- 6.1.1 General Liability - Commercial General Liability Insurance with limits of not less than One Million Dollars (\$1,000,000) per Occurrence and One Million Dollars (\$1,000,000) Aggregate, covering bodily injury and property damage, including volunteer excess medical coverage. Policy should also include endorsements for the following coverage: premises, personal injury, and blanket contractual coverage. General Liability should be on an Occurrence Form and not on a Claims Made or Modified Occurrence Form. Commercial General Liability policy shall be endorsed to name the Owner, but only insofar as the operations under this agreement are concerned.
- 6.1.2 Automobile Liability - Automobile Liability Insurance of not less than One Million Dollars (\$1,000,000) combined single limit per occurrence for bodily injury and property damage is required in the event motor vehicles are used by the contractor in the performance of the contract. Coverage must include owned autos, non-owned autos, and hired autos. Automobile Liability policy shall be endorsed to name the Owner, but only insofar as the operations under this agreement are concerned.
- 6.2 Contractor shall furnish a certificate of insurance satisfactory to Owner. Contractor agrees that the insurance required above shall be in effect at all times during the term of this contract. In the event said insurance coverage expires at any time or times during the term of this contract, Contractor agrees to provide at least 30 days prior to said expiration date, a new certificate of insurance evidencing insurance coverage as provided for herein for not less than the remainder of the term of this Agreement, or for a period of not less than one year.
- 6.3 Contractor's insurance coverage shall be primary insurance as respects the Owner. Any insurance or self-insurance maintained by the Owner shall be in excess of the Contractor's insurance and shall not contribute with it.

Article VII. Work Stoppage; Termination

- 7.1 If Contractor at any time during the progress of the work refuses or neglects, without the fault of Owner, to supply sufficient materials or workers to continue or complete the Work for a period of more than five (5) business days after having been notified in writing by Owner to furnish them, Owner shall have the power to terminate this Contract or furnish and provide such materials and workers as are necessary to finish the work, and the reasonable expense thereof shall be deducted from the Contract Price.
- 7.2 Owner shall have the right at any time, for his own convenience, to discontinue permanently the Work being done under this Contract by sending a written notice to Contractor to do so, and Contractor shall then discontinue the Work. In this event, Owner shall pay to Contractor the full amount (including retention) to which Contractor shall be entitled for all Work done by Contractor up to the time of such discontinuance. Owner shall also have the right to suspend the Work for such time as Owner shall deem reasonable. In such event, the Completion Date shall be extended by the number of days equal to the time during which the Work is suspended.

Article VIII. Miscellaneous

- 8.1 **Anti-Discrimination.** Contractor shall not discriminate against any employee or applicant for employment because of race, creed, color, national origin or ancestry, physical handicap, mental condition, marital status or sex. Contractor will comply with Section 1735 of the Labor Code and all provisions of Executive Order No 10925 of March 6, 1961, as amended, and all rules, regulations and relevant orders of the President's committee on Equal Opportunity created thereby. Contractor shall also comply with the California Fair Employment and Housing Act (Government Code, Section 12900 and following).
- 8.2 **Title to Materials.** All material resulting from removal work, except as specified otherwise, shall become the property of Contractor and shall be disposed of in accordance with Federal, State and local regulations and the Contract Documents.
- 8.3 **Indemnification.** Contractor shall indemnify, defend (upon the request of Owner) and hold harmless Owner, from any and all losses, liabilities, charges, damages, claims, liens, causes of action, awards, judgments, costs, and expenses (including, but not limited to, reasonable attorney's fees, expert fees, and investigation costs) of whatever kind or nature (collectively "Claims"), that arise out of or are in any way connected with the performance of this Contract by Contractor or Contractor's officers, agents, employees, independent contractors, subcontractors, or authorized representatives, except where caused by the sole negligence, active negligence or willful misconduct of Owner. Without limiting the generality of the foregoing, the same shall include injury, or death to any person or persons, damage to any property, regardless of where located, including the property of Owner, and any workers' compensation claim or suit arising from or connected with any services performed pursuant to this Contract on behalf of Contractor by any person or entity.
- 8.4 This Contract shall be deemed to have been entered into in the County of Amador, and governed in all respects by California law.

IN WITNESS WHEREOF the parties to these presents have hereunto set their hands and seals and have executed this contract in quadruplicate the day and year first above written.

OWNER:

By: Rocklin Costa
Rocklin Costa

CONTRACTOR:

By: [Signature]
Title: Archie
9.4.07

COUNTY OF AMADOR, a political subdivision of the State of California, agrees to comply with the provisions of Article 3.3 of this Contract, to the extent that those provisions pertain to it.

COUNTY OF AMADOR:

By: Louis Boitano
Louis Boitano
Chairman, Board of Supervisors

APPROVED AS TO FORM:
MARTHA JEANNE SHAVER
County Counsel of Amador County

ATTEST:
JENNIFER BURNS
Clerk of the Board of Supervisors

By: Martha Jeanne Shaver

By: Jennifer Burns

ATTACHMENT A

Compensation will be made on a time and materials basis with a total amount not-to-exceed as follows:

TASK LIST

PERMITS AND FEES

AWA Performance Bond (premium)	\$1,240.00
AWA 5/8" water meter.....	\$375.00

Additionally, Owner will pay any Fees required to complete the work directly to permitting agency.

WATER

Civil Drawing & Staking.....	\$950.00
Amador County Approved Traffic Control Plan.....	\$600.00
Repair A/C on Collins Road.....	\$500.00
Hot tap existing 6" water main.....	\$500.00
Trench & Install 2" pvc distribution to 5/8" water service.....	\$7,200.00
Restore Amador County Right of Way on Collins Road (AC & Shoulder).....	\$2,400.00
Remove and replace homeowner's fence	\$250.00

EXISTING WELL ABANDONMENT

Cut & cap domestic water well per County standard	\$3,000.00
Touch up grading and vegetation	\$250.00

Subtotal (excluding permits and fees above).....	\$15,650.00
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10% Contingency	\$1,560.00
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TOTAL (amount not to exceed for Work)	\$18,830.00
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BOARD OF SUPERVISORS

810 COURT STREET * JACKSON, CA 95642 * (209) 223-6470 * FAX (209) 257-0619



August 29, 2007

Rocklin Costa
10805 Five Mile Drive
Ione, CA 95640

RE: Public Water Hookup for 10951 Collins Road, Ione, CA

Dear Mr. Costa:

The purpose of this letter is to inform you that it appears that you may be eligible for participation in the Amador County Clean Drinking Water program. This program provides funds to cover the cost of connecting residences or businesses on properties served by wells providing drinking water that exceed the maximum contaminant level for nitrate to the community water system.

One of the program's eligibility requirements is that the property owner receiving funds from the program must agree in writing that if Mule Creek State Prison, or anyone on its behalf, provides any compensation related to the groundwater contamination, the amount of the grant will be repaid to the County. In no event shall the owner be responsible for repayment of grant funds in excess of any amount paid by Mule Creek State Prison or anyone acting on its behalf.

If you agree with the above stated condition, please sign and date the second page of this letter where indicated and return it to me or the Board of Supervisors Office as soon as possible. Please contact me at the above number if you have any questions or concerns.

Sincerely,

Richard M. Forster
Supervisor, District II

I, Rocklin Costa, agree that if Mule Creek State Prison, or anyone on its behalf, provides any compensation related to the groundwater contamination my property, the amount of the grant will be repaid to the County. It is understood that in no event shall I be responsible for repayment of grant funds in excess of any amount paid by Mule Creek State Prison or anyone acting on its behalf.

Dated: 9-6-07, 2007

Rocklin Costa
Rocklin Costa

FIRST AMENDMENT TO CONSTRUCTION CONTRACT

THIS FIRST AMENDMENT TO CONSTRUCTION CONTRACT (this "First Amendment") is made as of September 13, 2007 by and between Rocklin Costa ("Owner") and JTS Communities, Inc., a California Corporation whose place of business is at 401 Watt Avenue, Sacramento, California ("Contractor").

RECITALS

A. Owner and Contractor executed a Construction Contract (the "Original Contract") dated September 6, 2007 whereby The Contractor agreed to construct a new water service hookup for Owner's residence located at 10951 Collins Road, Ione, California 95640 upon the terms and conditions set forth in the Original Contract. The Original Contract is referred to herein as the "Contract."

B. Owner and Contractor desire to modify the Contract as set forth in this First Amendment.

NOW, THEREFOR, the parties agree as follows:

1. Attachment A of the Contract is replaced in its entirety by Attachment A, attached to this First Amendment and incorporated herein by reference.
2. Except as set forth in this First Amendment, the Contract shall remain unmodified and in full force and effect.

IN WITNESS WHEREOF, the parties have executed this First Amendment as of the date first set forth above.

OWNER:

By: Rocklin Costa
Rocklin Costa
9-13-07

CONTRACTOR:

By: [Signature]
Title: Tracy 9/18/07

COUNTY OF AMADOR:

By: Louis Boitano
Louis Boitano
Chairman, Board of Supervisors 9/13/07

APPROVED AS TO FORM:
MARTHA JEANNE SHAVER
County Counsel of Amador County

ATTEST:
JENNIFER BURNS
Clerk of the Board of Supervisors

By: Martha Jeanne Shaver

By: Jennifer Burns

ATTACHMENT A

Compensation will be made on a time and materials basis with a total amount not-to-exceed as follows:

TASK LIST**PERMITS AND FEES**

AWA Performance Bond (premium)	\$1,240.00
AWA 5/8" water meter	\$375.00

Additionally, Owner will pay any Fees required to complete the work directly to permitting agency.

WATER

Civil Drawing & Staking	\$950.00
Amador County Approved Traffic Control Plan	\$600.00
Repair A/C on Collins Road	\$500.00
Hot tap existing 6" water main	\$500.00
Trench & Install 2" pvc distribution to 5/8" water service	\$7,200.00
Restore Amador County Right of Way on Collins Road (AC & Shoulder)	\$2,400.00
Remove and replace homeowner's fence	\$250.00

EXISTING WELL ABANDONMENT

Disconnect domestic well from house and install backflow prevention device	\$3,000.00
Touch up grading and vegetation	\$250.00

Subtotal (excluding permits and fees above)	\$15,650.00
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10% Contingency	\$1,560.00
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TOTAL (amount not to exceed for Work)	\$18,830.00
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EXHIBIT “4”



AMADOR COUNTY COMMUNITY DEVELOPMENT AGENCY

ENVIRONMENTAL HEALTH DEPARTMENT

PHONE: (209) 223-6439

FAX: (209) 223-6228

WEBSITE: www.amadorgov.org

EMAIL: ACEH@amadorgov.org

COUNTY ADMINISTRATION CENTER • 810 COURT STREET • JACKSON, CA 95642-2132

MEMORANDUM

TO: Amador County Board of Supervisors

FROM: Michael W. Israel, Community Development Director *MW*

DATE: January 21, 2020

SUBJECT: Mule Creek State Prison – Update on Releases

Ongoing releases of stormwater and loss of sprayfield for the domestic wastewater land application area are of concern to the Central Valley Regional Board as well as area residents. Impacts to groundwater and surface water quality have been documented. The discharges are subject to regulatory oversight by the Central Valley Regional Board. CDCR has submitted a report on their investigation into possible sources of contamination of their stormwater system and has been directed to submit a report of waste discharge to address industrial waste streams and apparent lack of disposal area.

EXHIBIT “5”

Revised Stormwater Collection System Investigation Report of Findings

Mule Creek State Prison
4001 Hwy 104
Ione, California



Prepared for:

**California Department of Corrections
and Rehabilitation**



**August 2018
Revised October 2019**

516025.105

MCSP0003957



350 Hartnell Ave., Suite B, Redding, CA 96002-1875 530-221-5424

Civil Engineering, Environmental Services, Geosciences, Planning & Permitting, Surveying

Reference: 516025.105

November 1, 2019
Kenny Croyle
Central Valley Regional Water Quality Control Board
11020 Sun Center Drive #200
Rancho Cordova, CA 95670

Subject: Revised Stormwater Collection System Investigation Report of Findings

Dear Kenny Croyle:

This report presents the results of the stormwater collection system investigation conducted at Mule Creek State Prison in response to the Central Valley Regional Water Quality Control Board's Order (dated February 14, 2018). SHN is submitting this revised report on behalf of the California Department of Corrections and Rehabilitation to document the results of investigative activities since July 2018. The revised report has a different format than the original 2018 report to facilitate the presentation of significantly increased data volume resulting from the expanded site investigation.

If you have any questions, please call me at 707-441-8855.

Sincerely,

SHN

A handwritten signature in blue ink, appearing to read 'Mike Foget'.

Mike Foget, PE
Principal of Engineering Services

MKF:ame

Enclosure: Stormwater Collection System Investigation Report of Findings

c. w/Encl.: Adam Wolfe, CDCR
Terry Bettencourt, CDCR
Gregor Larabee, CDCR
Eric Papathakis, CDCR
Patrick Covello, Mule Creek State Prison
Christofer Hudgens, Mule Creek State Prison

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MCSP0003958

1.3 Background

MCSP opened in June 1987 and since that time has been owned and operated by CDCR. Through 2015, the prison consisted of Facilities "A," B, and C (Figure 1-2) and their accompanying yards (Old Prison Facility). The Old Prison Facility accommodated approximately 2,800 inmates. In 2016, the prison expanded by constructing the 1,584-inmate Mule Creek Infill Complex (MCIC), just east of the Old Prison Facility.

In July 2017, construction for MCSP Culvert Installation Project began. The project included the removal of short extensions of existing culverts, and the installation of new storm drain piping and precast drain inlets within an existing approximately ½-mile long drainage ditch along the western perimeter of the facility. On January 4, 2018, the CVRWQCB inspected the MCSP facility and determined the grading activities associated with the culvert installation comprised more than 1 acre. During the inspection, the CVRWQCB collected two surface water samples (GT-4 and Junction [GT-3]) from the Perimeter Ditch at the site to assess water quality (Figure 1-5).

On January 4, 2018, CVRWQCB inspected MCSP. The inspection was conducted in response to a complaint regarding an unpermitted construction project. During the inspection, CVRWQCB identified that the construction project had disturbed greater than one acre. CVRWQCB explained the Construction General Permit (CGP) requirements to MCSP staff. Additionally, CVRWQCB discussed the types of best management practices (BMPs) typically installed on construction projects and the sampling and monitoring requirements. CVRWQCB emphasized the importance of stabilizing the construction project when complete. CVRWQCB observed that the construction project had no stormwater management BMPs, and there had not been any monitoring and sampling. During the inspection, CVRWQCB collected water samples from GT-4 (Tower 4) and GT-3 (Junction).

On January 18, 2018, the MCSP warden received an email from CVRWQCB regarding the January 4, 2018, inspection and included the results of the two water samples collected during the inspection. Based on the results of the two water samples collected on January 4, 2018, CVRWQCB alleged that MCSP was, in fact, discharging grey water, sewage, or a mixture. The January 18, 2018, email further stated "Based on these results, the discharge of this wastewater to Mule Creek must cease immediately. All water discharging from this drainpipes (sic) must be contained and properly disposed of at your POTW. No water from this pipeline may be discharged to land or to surface water without a permit. Furthermore, because this appears to be sewage, CDCR must prevent human contact with this wastewater."

Also on January 18, 2018, the facility received a Notice of Non-Compliance from the CVRWQCB for grading activities greater than 1 acre, and the CVRWQCB required MCSP to obtain coverage under the CGP.

On January 19, 2018, MCSP ceased non-storm event discharges from the stormwater collection system (including the Main and Secondary Outfalls) of the Old Prison Facility and implemented sampling of the stormwater collection system in response to the January 18, 2018, email from the CVRWQCB (Appendix 6).

On February 14, 2018, MCSP received the Order from the CVRWQCB (Appendix 6). The CVRWQCB alleged: "The water quality samples collected by Board staff demonstrate that the water being discharged from the Old Prison Facility to the perimeter storm water collection system, and then into Mule Creek, is, at least partially, wastewater comingled with contaminated storm water and/or gray water." (CVRWQCB, February 2018).

1.4 Existing Stormwater Collection System

MCSP provided SHN with the available drawings of the existing stormwater collection system onsite (Appendix 3). The existing stormwater collection system historically flowed to an earthen Perimeter Ditch (Perimeter Ditch) that collected runoff from the Old Prison Facility and drained into three outfalls near GT-2, GT-3, and GT-9. In December 2018, the outfall near GT-2 was permanently blocked, thus rerouting flows from the GT-2 Drainage Basin into the Main Drainage Basin. This eliminated the GT-2 Drainage Basin as an individual drainage basin, leaving only two outfalls, the primary outfall located near GT-3 (Main Outfall) and the secondary outfall located near GT-9 (Secondary Outfall). It is estimated that three-quarters of the drainage area flows to the Main Outfall and one-quarter of the drainage area flows to the Secondary Outfall. The stormwater collected at each of the outfalls travels through culverts under the Exterior Perimeter Road to earthen channels that flow to Mule Creek.

The high points of the Perimeter Ditch and breaking points are located at Guard Tower 7 (GT-7) and Guard Tower 1 (GT-1). It should be noted that a portion of the Exterior Perimeter Road drains into the perimeter culvert. A stormwater collection line runs through the center of the Old Prison Facility by way of the Center Corridor that runs from manhole SWMH-514 to SWMH-501 (upstream to downstream, respectively; Figure 1-3). The MCSP Culvert Installation Project has filled in the western portion of the Perimeter Ditch (from GT-2 to GT-6).

1.4.1 Stormwater Collection to Outfall GT-3 (Main Drainage Basin)

The Main Drainage Basin is 64.2 acres and collects runoff from the "A" Yard, B Yard, and Center Corridor. The Main Outfall Drainage Basin conveys stormwater runoff from high points west of GT-2 in the south, and GT-7 in the north, to the low point near GT-3 (Figure 1-3). This drainage basin consists of three main components that convey water to the Main Outfall:

- 1) the Perimeter Ditch that flows from GT-7 (toward GT-6) to GT-3;
- 2) the Perimeter Ditch that flows from west of the entrance plaza to GT-3; and
- 3) stormwater collection system, which conveys stormwater from the Center Corridor within the prison to the Perimeter Ditch at GT-4.

The outfall near GT-2 was part of the MCSP Culvert Installation Project and was temporarily closed in February 2018, as directed by the CVRWQCB. As briefly mentioned in Section 1.4 the outfall near GT-2 was permanently blocked in December 2018. The drainage area between GT-1 and GT-2 ponds and is either pumped to the sanitary sewer or flows around GT-2 to the existing channel between GT-2 and GT-3. As described in Section 1.4.3, a percentage of stormwater is redirected to the Main Drainage Basin during storm events.

The Main Outfall discharges through a culvert under the Exterior Perimeter Road to an earthen channel that flows into Mule Creek approximately 50 feet upstream from the Mule Creek Bridge on Highway 104.

1.4.1.1 Perimeter Ditch GT-7 to GT-3

Stormwater runoff from Facility "A" and B yard areas is collected in DIs, which are connected by stormwater lines to the perimeter of the yards and the Perimeter Ditch (See Figure 1-3). Between GT-7 and GT-6, runoff from the Facility B building roofs and exterior area between the Facility B buildings and the LEF sheet flows down the Interior Perimeter Road towards the west where it is either collected by DIs or flows through the LEF to the Perimeter Ditch at GT-6. Between GT-6 and GT-3, the outer Facility "A" and B building roofs and

exterior area located between Facility "A" and B buildings sheet flows to the Interior Perimeter Road, which is equipped with DIs and culverts. The DIs and culverts along the Interior Perimeter Road area are connected to the new perimeter stormwater culvert that runs from GT-6 to GT-3, located within the Perimeter Ditch. Between GT-6 and GT-3, the area between the LEF and the Interior Perimeter Road sheet flows under the LEF to the Perimeter Ditch. The Perimeter Ditch has a series of DIs spaced along the stormwater collection system from GT-6 to GT-3. These DIs flow into the new perimeter stormwater culvert. At GT-4, stormwater from the Center Corridor enters the perimeter stormwater culvert.

The Perimeter Ditch from GT-7 to GT-5 collects stormwater from the paved areas in front of the Prison Industrial Authority/general warehouse, the vehicle maintenance shop, and the fire station, which are located outside of the secure facility and across the Exterior Perimeter Road. Runoff from these areas collect in DIs as well as sheet flows into the Perimeter Ditch (Figure 1-3).

The Exterior Perimeter Road is paved and crowned from GT-5 to GT-3. Stormwater runoff from half of the roadway sheet flows into the Perimeter Ditch. The other half of the road flows to areas outside of the stormwater collection system.

1.4.1.2 Perimeter Ditch West of Plaza Entrance to GT-3

Stormwater runoff from a portion of the Facility "A" Yard is collected in DIs and is plumbed to the Perimeter Ditch (Figure 1-3). A portion of the "A" Yard perimeter building roofs, some runoff from the "A" Yard, and the land area located between "A" Yard buildings and LEF sheet flows to the Interior Perimeter Road. The Interior Perimeter Road is equipped with DIs and culverts. The DIs and culverts along the Interior Perimeter Road are connected to the Perimeter Ditch. The Perimeter Ditch has a series of DIs from GT-2 to GT-3.

Surface runoff in the yard between the LEF and building D1 (near the plaza entrance) is collected in DIs and connected to the Perimeter Ditch at GT-2.

The Exterior Perimeter Road is crowned from GT-2 to GT-3 and stormwater runoff from half of the roadway sheet flows into the Perimeter Ditch. The other half of the road flows to areas outside of the stormwater collection system.

The GT-2 sub-Drainage Basin is 3.8 acres and collects runoff from a portion of the area between the "A" Yard housing units and the western portion of the main plaza entrance to MCSP. This section of the Perimeter Ditch conveys stormwater runoff from GT-1 to the GT-2 Outfall in the southern portion of the facility (Figure 1-3).

Historically, the GT-2 Outfall was its own basin and was culverted under the outside perimeter road to the grassy area to the south (at the facility entrance), then flowed by way of an underground culvert to the west, where it met the same earthen ditch to which the Main Outfall Drainage Basin contributes.

In response to the Order, the GT-2 Outfall was permanently closed in December 2018. During storm events, the GT-2 Drainage Basin (which previously discharged at GT-2 Outfall) ponds and is either pumped to the sanitary sewer cleanout at GT-2 or flows past GT-2 to the Main Outfall. Because GT-2 outfall was permanently closed in December 2018 and the runoff now flows to GT-3, the GT-2 sub-Drainage Basin has been incorporated into the Main Drainage basin leaving only two drainage basins and two outfalls to Mule Creek.

1.4.1.3 Center Corridor

The Center Corridor is a paved area that is located between Facilities "A," B, and C, and contains a stormwater collection line that runs from SWMH-514 to SWMH-501 (Figure 1-3). The Center Corridor stormwater collection line flows into the Perimeter Ditch at GT-4. The Center Corridor stormwater collection system collects stormwater from DIs in the center of the Center Corridor, loading bays (except the Meat Packing and Facility C Kitchen, which are plumbed to the sanitary sewer), and the interior of MCSP, which runs from the Main Entrance, past Central Services, toward the B Yard. There are seven electrical/communication vaults located in the Center Corridor, which discharge to the Center Corridor stormwater collection system. Additionally, the Correction Treatment Center (CTC) French drain and four groundwater sumps located in the CTC light well discharge to the Center Corridor stormwater collection system.

1.4.2 Stormwater Collection to Outfall GT-9 (Secondary Drainage Basin)

The Secondary Drainage Basin is 21.3 acres and collects runoff from the C Yard. The Secondary Drainage Basin Perimeter Ditch channels stormwater runoff from high points GT-1 and GT-7 to the low point at GT-9 (Figure 1-3). The Secondary Outfall is an earthen channel that flows into Mule Creek approximately 450 feet upstream from the Mule Creek Bridge on Highway 104.

In this drainage area, stormwater runoff from Facility C collects in DIs and is piped to the Perimeter Ditch. The storm drainage from the Facility C yard is composed of a series of DIs and stormwater lines.

The Exterior Perimeter Road is paved and crowned from GT-7 to GT-9. Stormwater runoff from half of the road sheet flows into the Perimeter Ditch. The other half of the road flows to areas outside of the stormwater collection system. The entire Exterior Perimeter Road surface is sloped toward the Perimeter Ditch between GT-9 and GT-1.

1.4.3 Stormwater Bypass Pumping

On January 19, 2018, MCSP closed the two gates located at the Main Outfall and blocked the Secondary Outfall and the GT-2 Outfall. Electric and/or engine driven pumps were placed at the outfalls to redirect stormwater flow into the facility's sanitary sewer collection system. During significant rain events, the pumps remained operational but the gates were opened. MCSP notified the California Office of Emergency Services of water discharged to Mule Creek during these significant rain events (Appendix 7).

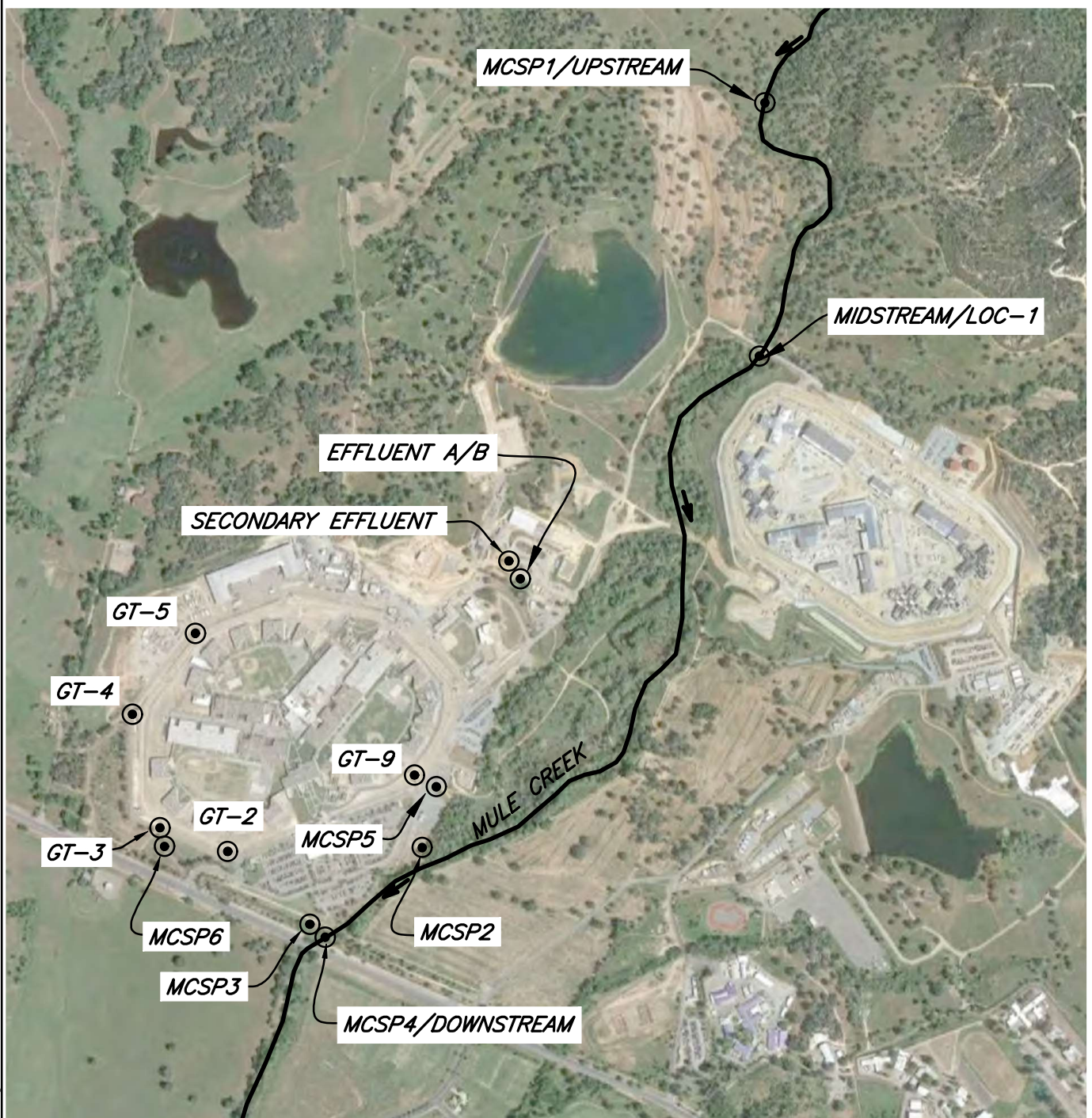
On March 14, 2018, three 21,000-gallon Baker tanks were delivered to MCSP and an additional seven Baker tanks were delivered on March 16, 2018. On March 22, 2018, four additional Baker tanks were delivered for added storage in the event that stormwater could not be contained in the Perimeter Ditch. Stormwater contained in the Baker tanks was pumped into the sanitary sewer collection system for treatment. As the OES reports in Appendix 7 indicate, the storage volume required to contain a significant storm event could not be met with 294,000 gallons of storage provided by the 14 Baker tanks. Subsequently, the tanks were removed from the site the week of July 9, 2018.

1.5 Stormwater Pollution Prevention Plan

1.5.1 Construction SWPPP

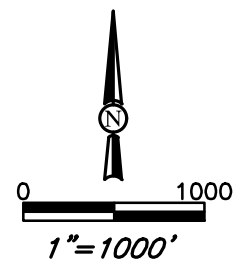
A construction Stormwater Pollution Prevention Plan (SWPPP) was prepared by Geosyntec Consultants for the MCSP Culvert Installation Project, which consists of construction activities outside of the western half of the LEF. A CGP Notice of Intent was certified by the legally responsible person on April 10, 2018, and the

\\redding\Projects\2016\516025-mule-creek-sp\105-MCSP-SW-45\Drawings\SIROF\SAVED: 10/19/2019 11:20 AM RHSS; PLOTTED: 10/19/2019 12:07 PM, ROBERT HESS



EXPLANATION


GT-4 GRAB WATER SAMPLE LOCATION AND DESIGNATION



NOTE: ALL LOCATIONS ARE APPROXIMATE



Mule Creek State Prison
Storm Water Collection Investigation
Ione, California

Site Plan Showing
Water Sampling Locations
SHN 516025.100

June 2018

516025-105-1-5-WATER

Figure 1-5

EXHIBIT “6”



Central Valley Regional Water Quality Control Board

6 August 2020

Patrick Covello, Warden
Mule Creek State Prison
P.O. Box 409099
Ione, CA 95640
CERTIFIED MAIL: 7019 2280 0001 9243 9454

***WATER CODE 13383 ORDER TO MONITOR DISCHARGES TO SURFACE WATER;
CALIFORNIA DEPARTMENT OF CORRECTIONS AND REHABILITATION – MULE
CREEK STATE PRISON, WDID#:5S03M2000307, AMADOR COUNTY***

The California Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) finds the following:

1. **Responsible Party.** The California Department of Corrections and Rehabilitation (CDCR or Permittee) owns and operates a municipal separate storm sewer system (MS4) at Mule Creek State Prison (Facility), located in Ione within Amador County.
2. **Mule Creek.** The Facility's MS4 discharges to Mule Creek, a water of the United States. Mule Creek is tributary to Dry Creek which runs into the Mokelumne River. The Central Valley Water Board's Water Quality Control Plan for the Sacramento River and San Joaquin River Basins designates the following beneficial uses for Mokelumne River, Camanche Reservoir and Delta and its tributaries, including Mule Creek: AGR, REC-1, REC-2, WARM, COLD, MIGR, SPWN, and WILD.
3. **Small MS4 General Permit.** The Facility is regulated under the State Water Resources Control Board (State Water Board) National Pollutant Discharge Elimination System General Permit for Waste Discharge Requirements for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems, Water Quality Order 2013-0001-DWQ, as amended (Small MS4 General Permit) as a Non-Traditional MS4.
4. **Storm Water Control Program.** The Small MS4 General Permit requires CDCR to develop and implement a storm water control program for the Facility to reduce the discharge of pollutants from its MS4 to waters of the United States and ensure compliance with applicable water quality requirements.

KARL E. LONGLEY ScD, P.E., CHAIR | PATRICK PULUPA, ESQ., EXECUTIVE OFFICER

11020 Sun Center Drive #200, Rancho Cordova, CA 95670 | www.waterboards.ca.gov/centralvalley

5. **Water Code Section 13383.** Under Water Code section 13383, subdivision (a), the regional board “may establish monitoring, inspection, entry, reporting, and recordkeeping requirements . . . for any person who discharges, or proposes to discharge, to navigable waters” The regional board “may require any person subject to this section to establish and maintain monitoring equipment or methods, including, where appropriate, biological monitoring methods, sample effluent as prescribed, and provide other information as may be reasonably required.” (Water Code, § 13383, subd. (b); see also 33 U.S.C. § 1318(a); 40 C.F.R. § 122.41(h).)

6. **Potential Liability for Noncompliance.** Pursuant to Water Code section 13385, any person who violates a requirement established pursuant to section 13383 may be subject to an administrative civil liability up to \$10,000 for each day in which the violation occurs. The Central Valley Water Board may also seek judicially imposed civil liabilities up to \$25,000 for each day in which the violation occurs.

7. **Need for Monitoring and Reporting Requirements.** Due to potential water quality impacts to Mule Creek while the Facility’s storm water control program is being fully developed and implemented and to ensure compliance with Small MS4 General Permit requirements, the Central Valley Water Board has determined that an interim monitoring and reporting program is necessary to monitor storm water discharges from the Facility to Mule Creek. The requirements in this Order supplement and do not supersede existing monitoring and reporting requirements under the Small MS4 General Permit or other monitoring and reporting orders issued by the Central Valley Water Board or its delegates.

8. **Delegated Authority.** This Order is issued under authority delegated to the Central Valley Water Board’s Executive Officer pursuant to Resolution R5-2018-0057 and Water Code section 13223.

IT IS HEREBY ORDERED that, pursuant to Water Code section 13383, CDCR shall comply with the following monitoring and reporting requirements set forth below:

I. REPORTING REQUIREMENTS

A. **Analytical Methods Report.** The Permittee shall complete and submit an Analytical Methods Report, electronically via the Stormwater Multiple Application Tracking System (SMARTS) database submittal, **by 15 September 2020**. The Analytical Methods Report shall include the following for each constituent to be monitored in accordance with this Order: 1) applicable water quality objective, 2) reporting level (RL), 3) method detection limit (MDL), and 4) analytical method. The analytical methods shall be sufficiently sensitive with RLs consistent with the Sufficient Sensitive Methods Rule (SSM Rule) per 40 C.F.R. sections 122.21(e)(3) and 122.44(i)(1)(iv), and with this Order. If an RL is not less than or equal to the applicable water quality objective for a constituent, the Discharger shall explain how the proposed analytical method complies with the SSM Rule. Central Valley Water Board staff will provide a tool with the transmittal of this Order to assist the Permittee in completing this requirement. The tool will include the constituents and associated applicable water quality objectives to be included in the Analytical Methods Report.

B. Quarterly Monitoring Report. Permittee shall submit a Quarterly Monitoring Report by **1 May, 1 August, 1 November, and 1 February annually**. The Quarterly Monitoring Reports shall cover the following periods: 1) 1 January through 31 March, 2) 1 April through 30 June, 3) 1 July through 30 September, and 4) 1 October through December. The Quarterly Monitoring Report shall:

1. Provide monitoring data and toxicity test results for the quarter and a copy of all sample documents, including chain of custody forms, toxicity test results, and all associated laboratory documents;

C. Annual Report. The Small MS4 General Permit requires an Annual Report to be submitted by 15 October. The following additional information shall be included in the Annual Report:

1. Toxicity Testing

- a) The dates of sample collection and initiation of each toxicity test;
- b) A summary of the reported toxicity test results according to the test methods manual chapter on report preparation and test review; and
- c) All results for storm water outfall parameters monitored concurrently with the toxicity test(s).

2. Monitoring data for the fiscal year covering 1 July through 30 June.

D. Discharge Notification. The Permittee shall notify the Central Valley Water Board within 24 hours of the Facility discharging storm water to the receiving water.

E. Certification. Any person signing a document submitted under this Order shall make the following Certification:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my knowledge and on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there a significant penalties for submitting false information, including the possibility of fine and imprisonment.

F. Submission. All reports and monitoring data shall be submitted into the SMARTS database. The monitoring data must be in an electronic format where the data can be manipulated.

II. MONITORING REQUIREMENTS

- A. **Monitoring Samples.** Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring locations specified below and, unless otherwise specified, before the monitored flow joins or is diluted by any other waste stream, body of water, or substance.
- B. **Quality Assurance and Control.** Chemical, bacteriological, and bioassay analyses of any material required by this Order shall be conducted by a laboratory accredited for such analyses by the State Water Board, Division of Drinking Water (DDW), in accordance with the provision of Water Code section 13176. Laboratories that perform sample analyses must be identified in all monitoring reports submitted to the Central Valley Water Board. Data generated from field measurements such as pH, dissolved oxygen (DO), electrical conductivity (EC), turbidity, and temperature are exempt pursuant to Water Code Section 13176. A manual containing the steps followed in this program for any field measurements such as pH, DO, EC, turbidity, and temperature must be kept onsite and shall be available for inspection by Central Valley Water Board staff. The Permittee must demonstrate sufficient capability (qualified and trained employees, properly calibrated and maintained field instruments, etc.) to adequately perform these field measurements. The Quality Assurance-Quality Control Program must conform to U.S. EPA guidelines or to procedures approved by the Central Valley Water Board.
- C. **Monitoring Instruments and Devices.** Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. All monitoring instruments and devices used by the Permittee to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary, at least yearly, to ensure their continued accuracy. All flow measurement devices shall be calibrated at least once per year to ensure continued accuracy of the devices.
- D. **Analytical Methods.** Laboratory analytical methods shall be sufficiently sensitive in accordance with the Sufficiently Sensitive Methods Rule (SSM Rule) specified under 40 CFR 122.21(e)(3) and 122.44(i)(1)(iv). A U.S. EPA-approved analytical method is sufficiently sensitive for a pollutant/parameter where:
1. The method minimum level (ML) is at or below the applicable water quality objective for the receiving water, or;
 2. The method ML is above the applicable water quality objective for the receiving water but the amount of the pollutant/parameter in the discharge is high enough that the method detects and quantifies the level of the pollutant/parameter, or;

3. The method ML is above the applicable water quality objective for the receiving water, but the ML is the lowest of the 40 CFR 136 U.S. EPA-approved analytical methods for the pollutant/parameter.

III. MONITORING LOCATIONS

- A. **Monitoring Locations.** The Permittee shall establish the monitoring locations identified in Table A.
- B. **Executive Officer Approval.** Monitoring locations shall not be changed without notification to and the approval of the Executive Officer.

Table A. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description ¹
--	RAIN-1	Rain gage located at the Mule Creek Wastewater Treatment Plant
--	MCSP1 (RSW-001)	Upstream receiving water location
001	MCSP2 (OUTFALL-1)	Storm water outfall into Mule Creek
002	MCSP3 (OUTFALL-2)	Stormwater outfall into Mule Creek
--	MCSP4 (RSW-002)	Downstream receiving water location approximately 200 feet downstream (south) of MCSP 3 (OUTFALL-2).

Table Notes:

1. Monitoring locations are shown in Figure 1 of this Order.

IV. STORM WATER OUTFALL MONITORING REQUIREMENTS

When discharging storm water to Mule Creek, the Permittee shall monitor storm water outfall discharges from the Facility at Monitoring Locations MCSP2 and MCSP3 as shown in Table B. Storm water outfall monitoring shall be collected concurrently with receiving water sampling (i.e., within four (4) hours).

Table B. Storm Water Outfall Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Total Discharge	MGD	Calculated	1/event
Duration of Discharge	Hours	Calculated	1/event
Rainfall in previous 24-hours	Inches	Gage	1/event
Biochemical Oxygen Demand 5-day @ 20°C (BOD)	mg/L	Grab	1/event

Parameter	Units	Sample Type	Minimum Sampling Frequency
Chemical Oxygen Demand (COD)	mg/L	Grab	1/event
Dissolved Organic Carbon (DOC)	mg/L	Grab	1/event
Dissolved Oxygen	mg/L	Grab	1/event
Electrical Conductivity (EC) @ 25°C	µmhos/cm	Grab	1/event
Oil & Grease	mg/L	Grab	1/event
Ammonia (Total as N)	mg/L	Grab	1/event
pH	Standard Units	Grab	1/event
Settleable Solids	ml/L	Grab	1/event
Temperature	°C	Grab	1/event
Total Dissolved Solids (TDS)	mg/L	Grab	1/event
Total Hardness, (as CaCO ₃)	mg/L	Grab	1/event
Total Suspended Solids (TSS)	mg/L	Grab	1/event
Turbidity	NTU	Grab	1/event
E. coli	CFU/100 mL	Grab	1/event
Aluminum, Total recoverable ²	µg/L	Grab	1/event
Arsenic, Total recoverable	µg/L	Grab	1/event
Copper, Dissolved	µg/L	Grab	1/event
Iron, Total Recoverable ²	µg/L	Grab	1/event
Lead, Dissolved	µg/L	Grab	1/event
Manganese, Total Recoverable ²	µg/L	Grab	1/event
Zinc, Dissolved	µg/L	Grab	1/event

Table Notes:

1. Analytical Methods. All parameters shall be analyzed using the analytical methods described in 40 CFR part 136, unless approved by the Executive Officer.
2. Aluminum, Manganese, and Iron. Samples may be passed through a 1.5-micron filter to reduce filterable residue prior to analysis. Filter size recommended in EPA Approved Methods 30 CFR Part 136 for Total Dissolved Solids and Total Suspended Solids and is used for removing suspended solids from a solid prior to analysis. Filtering the sample will remove suspended solids that may contribute to turbidity and color in samples that may negatively impact analytical results for metal concentrations while better

representing the dissolved solids that may pass through a water treatment plant's filtration system.

V. RECEIVING WATER MONITORING REQUIREMENTS

When discharging storm water to Mule Creek, the Permittee shall monitor receiving water at Monitoring Locations MCSP1 and MCSP4 as shown in Table C. Receiving water monitoring shall be collected concurrently with storm water outfall sampling (i.e., within four (4) hours).

Table C. Receiving Water Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Dissolved Organic Carbon (DOC)	mg/L	Grab	1/event
Dissolved Oxygen (DO)	mg/L	Grab	1/event
Electrical Conductivity (EC) @ 25°C	µmhos/cm	Grab	1/event
pH	Standard Units	Grab	1/event
Temperature	°C	Grab	1/event
Total Hardness (as CaCO ₃)	mg/L	Grab	1/event
Total Suspended Solids (TSS)	mg/L	Grab	1/event
Turbidity	NTU	Grab	1/event
E. coli	CFU/100 mL	Grab	1/event
Aluminum, Total Recoverable ²	µg/L	Grab	1/event
Arsenic, Total recoverable	µg/L	Grab	1/event
Copper, Dissolved	µg/L	Grab	1/event
Iron, Total Recoverable ²	µg/L	Grab	1/event
Lead, Dissolved	µg/L	Grab	1/event
Manganese, Total Recoverable ²	µg/L	Grab	1/event
Zinc, Dissolved	µg/L	Grab	1/event

Table Notes:

1. Analytical Methods. All parameters shall be analyzed using the analytical methods described in 40 CFR part 136, unless approved by the Executive Officer.
2. Aluminum, Manganese, and Iron. Samples may be passed through a 1.5-micron filter to reduce filterable residue prior to analysis. Filter size recommended in EPA Approved Methods 30 CFR Part 136 for Total Dissolved Solids and Total Suspended Solids and is used for removing suspended solids

from a solid prior to analysis. Filtering the sample will remove suspended solids that may contribute to turbidity and color in samples that may negatively impact analytical results for metal concentrations while better representing the dissolved solids that may pass through a water treatment plant's filtration system.

VI. WATER COLUMN TOXICITY TESTING REQUIREMENTS

A. Acute Toxicity Testing. The Permittee shall conduct acute toxicity testing to determine whether the storm water discharge is contributing to acute toxicity to the receiving water. The Permittee shall meet the following acute toxicity testing requirements:

1. *Monitoring Frequency* – The Permittee shall perform acute toxicity testing twice per year (i.e., one sample January – June and another sample July – December), while discharging storm water and concurrent with storm water outfall constituent sampling required in III.A, above.
2. *Sample Types* – The Permittee shall use static renewal testing. The receiving water samples shall be grab samples and shall be taken at MCSP1 and MCSP4
3. *Test Species* – The test species shall consist of fathead minnows (*Pimephales promelas*).
4. *Methods* – The acute toxicity testing samples shall be analyzed using EPA-821-R-02-012 (Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition, USEPA, October 2002, or most recent edition).
5. *Test Failure* – If an acute toxicity test does not meet all test acceptability criteria, as specified in the test method, the Permittee must re-sample and re-test to satisfy the monitoring frequency requirement (i.e., twice per year sampling).

VII. EFFECTIVE DATE

This Order is effective as of the date set forth below and remains in effect until rescinded by the Executive Officer.

VIII. RIGHT TO PETITION

Persons aggrieved by this Central Valley Water Board action may petition the State Water Board for review in accordance with Water Code section 13320, and California Code of Regulations, title 23, section 2050 et seq. The State Water Board must receive the petition by 5pm on the 30th day after the date of this Order, except that if the 30th day falls on a Saturday, Sunday or State holiday, in which case the petition must be received by the State Water Board by 5pm on

the next business day. Laws and regulations applicable to filing petitions are available on the internet (at the address below), and copies will also be provided upon request.

http://www.waterboards.ca.gov/public_notices/petitions/water_quality

If you have any questions, please contact Elizabeth Lee at (916) 464-4787 or at Elizabeth.Lee@waterboards.ca.gov.

Patrick Pulupa
Executive Officer

Attachment: Figure 1 – Mule Creek State Prison Water Sampling Locations, dated June 2018

cc: [via E-mail]
Bryan Smith, Central Valley Regional Water Quality Control Board, Redding
Kari Holmes, Central Valley Regional Water Quality Control Board, Rancho Cordova
Howard Hold, Central Valley Regional Water Quality Control Board, Rancho Cordova
Gregor Larabee, California Department of Corrections and Rehabilitation
Christofer Hudgens, California Department of Corrections and Rehabilitation

Figure 1 – Mule Creek State Prison Water Sampling Locations

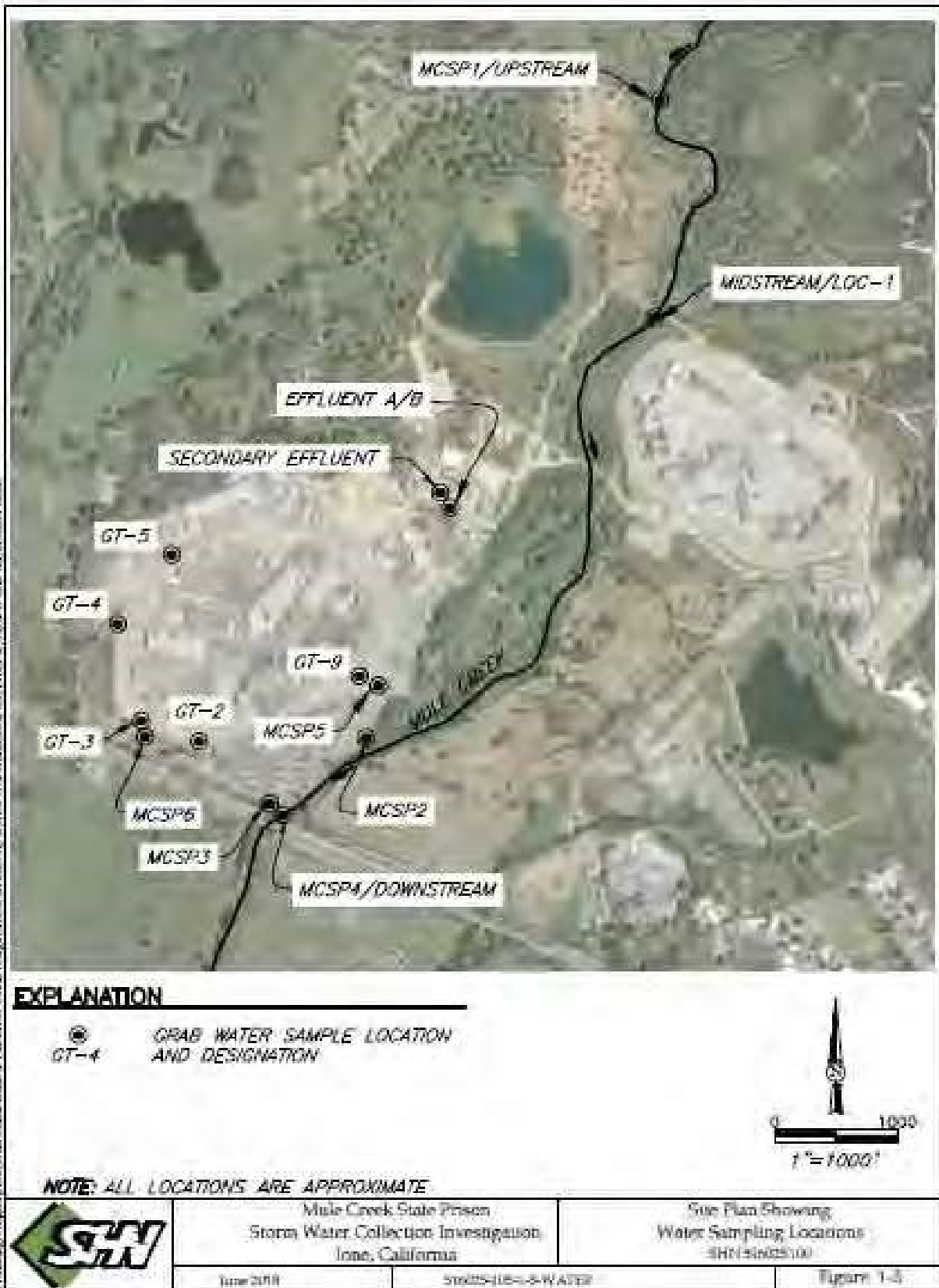


EXHIBIT “7”



Central Valley Regional Water Quality Control Board

22 December 2020

Patrick Covello, Warden
Mule Creek State Prison
P.O. Box 409099
Ione, CA 95640
E-mail: Patrick.Covello@cdcr.ca.gov

WATER CODE SECTION 13383 ORDER TO MONITOR DISCHARGES TO SURFACE WATER; CALIFORNIA DEPARTMENT OF CORRECTIONS AND REHABILITATION – MULE CREEK STATE PRISON, WDID#:5S03M2000307, AMADOR COUNTY

On 6 August 2020, the California Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) issued the California Department of Corrections and Rehabilitation (CDCR or Permittee) a Water Code Section 13383 Order to monitor discharges from Mule Creek State Prison (Facility) to surface water. This revised Water Code Section 13383 Order is being issued to clarify that monitoring is to be conducted when there is any discharge from the Facility's municipal separate storm sewer system (MS4) and require submittal of a Non-Storm Water Discharge Report. This Water Code 13383 Section Order supersedes the 6 August 2020 Water Code Section 13383 Order.

The Central Valley Water Board finds the following:

1. **Responsible Party.** CDCR owns and operates an MS4 at the Facility, located in Ione within Amador County.
2. **Mule Creek.** The Facility's MS4 discharges to Mule Creek, a water of the United States. Mule Creek is tributary to Dry Creek which runs into the Mokelumne River. The Central Valley Water Board's Water Quality Control Plan for the Sacramento River and San Joaquin River Basins designates the following beneficial uses for Mokelumne River, Camanche Reservoir and Delta and its tributaries, including Mule Creek: AGR, REC-1, REC-2, WARM, COLD, MIGR, SPWN, and WILD.
3. **Small MS4 General Permit.** The Facility is regulated under the State Water Resources Control Board (State Water Board) National Pollutant Discharge Elimination System General Permit for Waste Discharge Requirements for Storm Water Discharges

KARL E. LONGLEY ScD, P.E., CHAIR | PATRICK PULUPA, ESQ., EXECUTIVE OFFICER

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from Small Municipal Separate Storm Sewer Systems, Water Quality Order 2013-0001-DWQ, as amended (Small MS4 General Permit) as a Non-Traditional MS4.

4. **Storm Water Control Program.** The Small MS4 General Permit requires CDCR to develop and implement a storm water control program for the Facility to reduce the discharge of pollutants from its MS4 to waters of the United States and ensure compliance with applicable water quality requirements.

5. **Water Code Section 13383.** Under Water Code section 13383, subdivision (a), the regional board “may establish monitoring, inspection, entry, reporting, and recordkeeping requirements . . . for any person who discharges, or proposes to discharge, to navigable waters” The regional board “may require any person subject to this section to establish and maintain monitoring equipment or methods, including, where appropriate, biological monitoring methods, sample effluent as prescribed, and provide other information as may be reasonably required.” (Water Code, § 13383, subd. (b); see also 33 U.S.C. § 1318(a); 40 C.F.R. § 122.41(h).)

6. **Potential Liability for Noncompliance.** Pursuant to Water Code section 13385, any person who violates a requirement established pursuant to section 13383 may be subject to an administrative civil liability up to \$10,000 for each day in which the violation occurs. The Central Valley Water Board may also seek judicially imposed civil liabilities up to \$25,000 for each day in which the violation occurs.

7. **Need for Monitoring and Reporting Requirements.** Due to potential water quality impacts to Mule Creek while the Facility’s storm water control program is being fully developed and implemented and to ensure compliance with Small MS4 General Permit requirements, the Central Valley Water Board has determined that an interim monitoring and reporting program is necessary to monitor MS4 discharges from the Facility to Mule Creek.

The Discharger has been submitting weekly monitoring reports since 2018. This weekly monitoring report is required by a Water Code Section 13267 Order issued by the Central Valley Water Board on 14 February 2019. Recent weekly monitoring reports document large volumes of irrigation water being discharged through the Facility’s MS4 into Mule Creek. The Discharge Prohibitions, Section B, in the Small MS4 General Permit state the following, in relevant part:

3. Discharges through the MS4 of material other than storm water to waters of the U.S. shall be effectively prohibited, except as allowed under this Provision or as otherwise authorized by a separate NPDES permit. The following non-storm water discharges are not prohibited provided any pollutant discharges are identified and appropriate control measures to minimize the impacts of such discharges, are developed and implemented under the Permittee’s storm water program. This provision does not obviate the need to obtain any other appropriate permits for such discharges.

[...]

- o. incidental runoff from landscaped areas (as defined in accordance with Section B.4 of this Order.

[...]

If a Permittee or Regional Water Board Executive Officer determines that any individual or class of non-storm water discharge(s) listed above may be a significant source of pollutants to waters of the U.S. or physically interconnected MS4, or poses a threat to water quality standards (beneficial uses), the Regional Water Board Executive Officer may require the appropriate Permittee to monitor and submit a report and to implement BMPs on the discharge.

- 4. Discharges in excess of an amount deemed to be incidental runoff shall be controlled. Regulated Small MS4s shall require parties responsible for such to implement Section B.4.a-d below. Incidental runoff is defined as unintended amounts (volume) of runoff, such as unintended, minimal over-spray from sprinklers that escapes the area of intended use. Water leaving an intended use area is not considered incidental if it is part of the facility design, if it is due to excessive application, if it is due to intentional overflow or application, or if it is due to negligence.

[...]

Non-storm water runoff discharge that is not incidental is prohibited, unless otherwise specified in Section B.3 above.

Due to the Facility discharging large volumes of irrigation water (i.e., non-storm water) through its MS4, a report is necessary for the Discharger to demonstrate that the non-storm water discharges through the MS4 are in compliance with the Discharge Prohibitions in the Small MS4 General Permit. The requirements in this Order supplement and do not supersede existing monitoring and reporting requirements under the Small MS4 General Permit or other monitoring and reporting orders issued by the Central Valley Water Board or its delegates.

- 8. **Delegated Authority.** This Order is issued under authority delegated to the Central Valley Water Board's Executive Officer pursuant to Resolution R5-2018-0057 and Water Code section 13223.

IT IS HEREBY ORDERED that, pursuant to Water Code section 13383, CDCR shall comply with the following monitoring and reporting requirements set forth below:

I. REPORTING REQUIREMENTS

- A. **Analytical Methods Report.** The Permittee shall complete and submit an Analytical Methods Report, electronically via the Stormwater Multiple Application Tracking System (SMARTS) database submittal. The Analytical Methods Report shall include the following for each constituent to be

monitored in accordance with this Order: 1) applicable water quality objective, 2) reporting level (RL), 3) method detection limit (MDL), and 4) analytical method. The analytical methods shall be sufficiently sensitive with RLs consistent with the Sufficient Sensitive Methods Rule (SSM Rule) per 40 C.F.R. sections 122.21(e)(3) and 122.44(i)(1)(iv), and with this Order. If an RL is not less than or equal to the applicable water quality objective for a constituent, the Discharger shall explain how the proposed analytical method complies with the SSM Rule. Central Valley Water Board staff will provide a tool with the transmittal of this Order to assist the Permittee in completing this requirement. The tool will include the constituents and associated applicable water quality objectives to be included in the Analytical Methods Report. In accordance with the 6 August 2020 Water Code 13383 Order, the Discharger submitted an Analytical Methods Report on 15 September 2020.

B. Quarterly Monitoring Report. Permittee shall submit a Quarterly Monitoring Report by **1 May, 1 August, 1 November, and 1 February annually**. The Quarterly Monitoring Reports shall cover the following periods: 1) 1 January through 31 March, 2) 1 April through 30 June, 3) 1 July through 30 September, and 4) 1 October through December. The Quarterly Monitoring Report shall:

1. Provide monitoring data and toxicity test results for the quarter and a copy of all sample documents, including chain of custody forms, toxicity test results, and all associated laboratory documents

C. Annual Report. The Small MS4 General Permit requires an Annual Report to be submitted by 15 October. The following additional information shall be included in the Annual Report:

1. Toxicity Testing

- a) The dates of sample collection and initiation of each toxicity test;
- b) A summary of the reported toxicity test results according to the test methods manual chapter on report preparation and test review; and
- c) All results for MS4 outfall parameters monitored concurrently with the toxicity test(s).

2. Monitoring data for the fiscal year covering 1 July through 30 June.

D. Non-Storm Water Discharge Report. The Permittee shall submit a Non-Storm Water Discharge Report **by 1 February 2021**. The Non-Storm Water Discharge Report shall either:

1. Demonstrate how the non-storm water discharge is in compliance with the Discharge Prohibitions in the Small MS4 General Permit; or

2. If the non-storm water discharge does not comply with the Discharge Prohibitions, provide a proposed plan, subject to Central Valley Water Board staff approval, to eliminate the non-storm water discharge. The proposed plan shall include the following:
 - a) Details of proposed best management practices (BMPs) to be implemented to eliminate the non-storm water discharge,
 - b) Details of interim actions to mitigate impact of non-storm water discharges to Mule Creek,
 - c) Implementation schedule of the BMPs, and
 - d) Date for expected compliance with the Discharge Prohibitions.
- E. **Discharge Notification.** The Permittee shall notify the Central Valley Water Board within 24 hours of the Facility discharging through the MS4 to the receiving water.
- F. **Certification.** Any person signing a document submitted under this Order shall make the following Certification:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my knowledge and on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there a significant penalties for submitting false information, including the possibility of fine and imprisonment.
- G. **Submission.** All reports and monitoring data shall be submitted into the SMARTS database. The monitoring data must be in an electronic format where the data can be manipulated.

II. MONITORING REQUIREMENTS

- A. **Monitoring Samples.** Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring locations specified below and, unless otherwise specified, before the monitored flow joins or is diluted by any other waste stream, body of water, or substance.
- B. **Quality Assurance and Control.** Chemical, bacteriological, and bioassay analyses of any material required by this Order shall be conducted by a laboratory accredited for such analyses by the State Water Board, Division of Drinking Water (DDW), in accordance with the provision of Water Code section 13176. Laboratories that perform sample analyses must be identified in all monitoring reports submitted to the Central Valley Water Board. Data generated from field measurements such as pH, dissolved oxygen (DO),

electrical conductivity (EC), turbidity, and temperature are exempt pursuant to Water Code Section 13176. A manual containing the steps followed in this program for any field measurements such as pH, DO, EC, turbidity, and temperature must be kept onsite and shall be available for inspection by Central Valley Water Board staff. The Permittee must demonstrate sufficient capability (qualified and trained employees, properly calibrated and maintained field instruments, etc.) to adequately perform these field measurements. The Quality Assurance-Quality Control Program must conform to U.S. EPA guidelines or to procedures approved by the Central Valley Water Board.

- C. **Monitoring Instruments and Devices.** Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. All monitoring instruments and devices used by the Permittee to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary, at least yearly, to ensure their continued accuracy. All flow measurement devices shall be calibrated at least once per year to ensure continued accuracy of the devices.
- D. **Analytical Methods.** Laboratory analytical methods shall be sufficiently sensitive in accordance with the Sufficiently Sensitive Methods Rule (SSM Rule) specified under 40 CFR 122.21(e)(3) and 122.44(i)(1)(iv). A U.S. EPA-approved analytical method is sufficiently sensitive for a pollutant/parameter where:
1. The method minimum level (ML) is at or below the applicable water quality objective for the receiving water, or;
 2. The method ML is above the applicable water quality objective for the receiving water but the amount of the pollutant/parameter in the discharge is high enough that the method detects and quantifies the level of the pollutant/parameter, or;
 3. The method ML is above the applicable water quality objective for the receiving water, but the ML is the lowest of the 40 CFR 136 U.S. EPA-approved analytical methods for the pollutant/parameter.

III. MONITORING LOCATIONS

- A. **Monitoring Locations.** The Permittee shall establish the monitoring locations identified in Table A.
- B. **Executive Officer Approval.** Monitoring locations shall not be changed without notification to and the approval of the Executive Officer.

Table A. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description¹
--	RAIN-1	Rain gage located at the Mule Creek Wastewater Treatment Plant
--	MCSP1 (RSW-001)	Upstream receiving water location
001	MCSP5 (OUTFALL-1)	MS4 slide gate
002	MCSP6 (OUTFALL-2)	MS4 slide gate
--	MCSP4 (RSW-002)	Downstream receiving water location approximately 200 feet downstream (south) of MCSP3 .

Table Notes:

1. Monitoring locations are shown in Figure 1 of this Order.

IV. MS4 OUTFALL MONITORING REQUIREMENTS

When discharging through the MS4 to Mule Creek, the Permittee shall monitor MS4 outfall discharges from the Facility at Monitoring Locations MCSP5 and MCSP6 as shown in Table B. MS4 outfall monitoring shall be collected concurrently with receiving water sampling (i.e., within four (4) hours).

Table B. MS4 Outfall Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Total Discharge	MGD	Calculated	1/event
Duration of Discharge	Hours	Calculated	1/event
Rainfall in previous 24-hours	Inches	Gage	1/event
Biochemical Oxygen Demand 5-day @ 20°C (BOD)	mg/L	Grab	1/event
Chemical Oxygen Demand (COD)	mg/L	Grab	1/event
Dissolved Organic Carbon (DOC)	mg/L	Grab	1/event
Dissolved Oxygen	mg/L	Grab	1/event
Electrical Conductivity (EC) @ 25°C	µmhos/cm	Grab	1/event
Oil & Grease	mg/L	Grab	1/event
Ammonia (Total as N)	mg/L	Grab	1/event
pH	Standard Units	Grab	1/event

Parameter	Units	Sample Type	Minimum Sampling Frequency
Settleable Solids	ml/L	Grab	1/event
Temperature	°C	Grab	1/event
Total Dissolved Solids (TDS)	mg/L	Grab	1/event
Total Hardness, (as CaCO ₃)	mg/L	Grab	1/event
Total Suspended Solids (TSS)	mg/L	Grab	1/event
Turbidity	NTU	Grab	1/event
E. coli	CFU/100 mL	Grab	1/event
Aluminum, Total recoverable ²	µg/L	Grab	1/event
Arsenic, Total recoverable	µg/L	Grab	1/event
Copper, Dissolved	µg/L	Grab	1/event
Iron, Total Recoverable ²	µg/L	Grab	1/event
Lead, Dissolved	µg/L	Grab	1/event
Manganese, Total Recoverable ²	µg/L	Grab	1/event
Zinc, Dissolved	µg/L	Grab	1/event

Table Notes:

1. Analytical Methods. All parameters shall be analyzed using the analytical methods described in 40 CFR part 136, unless approved by the Executive Officer.
2. Aluminum, Manganese, and Iron. Samples may be passed through a 1.5-micron filter to reduce filterable residue prior to analysis. Filter size recommended in EPA Approved Methods 30 CFR Part 136 for Total Dissolved Solids and Total Suspended Solids and is used for removing suspended solids from a solid prior to analysis. Filtering the sample will remove suspended solids that may contribute to turbidity and color in samples that may negatively impact analytical results for metal concentrations while better representing the dissolved solids that may pass through a water treatment plant's filtration system.

V. RECEIVING WATER MONITORING REQUIREMENTS

When discharging through the MS4 to Mule Creek, the Permittee shall monitor receiving water at Monitoring Locations MCSP1 and MCSP4 as shown in Table C. Receiving water monitoring shall be collected concurrently with MS4 outfall sampling (i.e., within four (4) hours).

Table C. Receiving Water Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Dissolved Organic Carbon (DOC)	mg/L	Grab	1/event
Dissolved Oxygen (DO)	mg/L	Grab	1/event
Electrical Conductivity (EC) @ 25°C	µmhos/cm	Grab	1/event
pH	Standard Units	Grab	1/event
Temperature	°C	Grab	1/event
Total Hardness (as CaCO ₃)	mg/L	Grab	1/event
Total Suspended Solids (TSS)	mg/L	Grab	1/event
Turbidity	NTU	Grab	1/event
E. coli	CFU/100 mL	Grab	1/event
Aluminum, Total Recoverable ²	µg/L	Grab	1/event
Arsenic, Total recoverable	µg/L	Grab	1/event
Copper, Dissolved	µg/L	Grab	1/event
Iron, Total Recoverable ²	µg/L	Grab	1/event
Lead, Dissolved	µg/L	Grab	1/event
Manganese, Total Recoverable ²	µg/L	Grab	1/event
Zinc, Dissolved	µg/L	Grab	1/event

Table Notes:

1. Analytical Methods. All parameters shall be analyzed using the analytical methods described in 40 CFR part 136, unless approved by the Executive Officer.
2. Aluminum, Manganese, and Iron. Samples may be passed through a 1.5-micron filter to reduce filterable residue prior to analysis. Filter size recommended in EPA Approved Methods 30 CFR Part 136 for Total Dissolved Solids and Total Suspended Solids and is used for removing suspended solids from a solid prior to analysis. Filtering the sample will remove suspended solids that may contribute to turbidity and color in samples that may negatively impact analytical results for metal concentrations while better representing the dissolved solids that may pass through a water treatment plant's filtration system.

VI. WATER COLUMN TOXICITY TESTING REQUIREMENTS

A. Acute Toxicity Testing. The Permittee shall conduct acute toxicity testing to determine whether the MS4 discharge is contributing to acute toxicity to the receiving water. The Permittee shall meet the following acute toxicity testing requirements:

1. *Monitoring Frequency* – The Permittee shall perform acute toxicity testing twice per year (i.e., one sample January – June and another sample July – December), while discharging through the MS4 and concurrent with MS4 outfall constituent sampling required in III.A, above.
2. *Sample Types* – The Permittee shall use static renewal testing. The receiving water samples shall be grab samples and shall be taken at MCSP1 and MCSP4
3. *Test Species* – The test species shall consist of fathead minnows (*Pimephales promelas*).
4. *Methods* – The acute toxicity testing samples shall be analyzed using EPA-821-R-02-012 (Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition, USEPA, October 2002, or most recent edition).
5. *Test Failure* – If an acute toxicity test does not meet all test acceptability criteria, as specified in the test method, the Permittee must re-sample and re-test to satisfy the monitoring frequency requirement (i.e., twice per year sampling).

VII. EFFECTIVE DATE

This Order is effective as of the date set forth below and remains in effect until rescinded by the Executive Officer.

VIII. RIGHT TO PETITION

Persons aggrieved by this Central Valley Water Board action may petition the State Water Board for review in accordance with Water Code section 13320, and California Code of Regulations, title 23, section 2050 et seq. The State Water Board must receive the petition by 5pm on the 30th day after the date of this Order, except that if the 30th day falls on a Saturday, Sunday or State holiday, in which case the petition must be received by the State Water Board by 5pm on the next business day. Laws and regulations applicable to filing petitions are available on the internet (at the address below), and copies will also be provided upon request.

http://www.waterboards.ca.gov/public_notices/petitions/water_quality

If you have any questions, please contact Elizabeth Lee at (916) 464-4787 or at Elizabeth.Lee@waterboards.ca.gov.



Date: 2020.12.22
12:25:31 -08'00'

22 December 2020

Patrick Pulupa
Executive Officer

Date Signed

Attachment: Figure 1 – Mule Creek State Prison Water Sampling Locations, dated June 2018

cc: [via E-mail]
Bryan Smith, Central Valley Regional Water Quality Control Board, Redding
Kari Holmes, Central Valley Regional Water Quality Control Board, Rancho Cordova
Howard Hold, Central Valley Regional Water Quality Control Board, Rancho Cordova
Gregor Larabee, California Department of Corrections and Rehabilitation
Christofer Hudgens, California Department of Corrections and Rehabilitation

Figure 1 – Mule Creek State Prison Water Sampling Locations

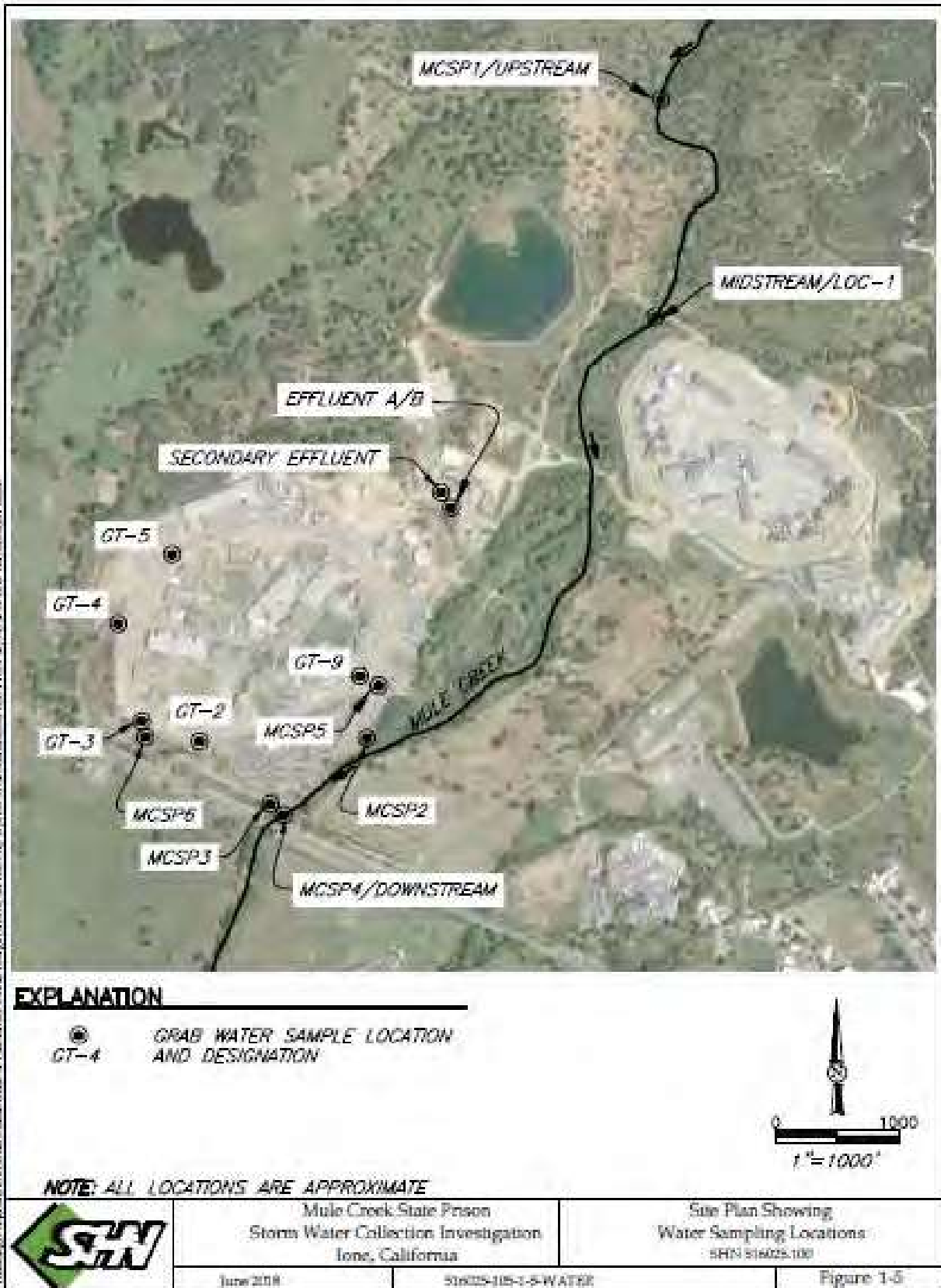


EXHIBIT “8”



Central Valley Regional Water Quality Control Board

29 November 2021

Patrick Covello, Warden
Mule Creek State Prison
P.O. Box 409099
Ione, CA 95640
E-mail: Patrick.Covello@cdcr.ca.gov

***REVISED WATER CODE SECTION 13383 ORDER TO MONITOR DISCHARGES TO
SURFACE WATER; CALIFORNIA DEPARTMENT OF CORRECTIONS AND
REHABILITATION – MULE CREEK STATE PRISON, WDID#:5S03M2000307,
AMADOR COUNTY***

The California Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) finds the following:

1. **Responsible Party.** California Department of Corrections and Rehabilitation (CDCR or Permittee) owns and operates an MS4 at Mule Creek State Prison (Facility), located in Ione within Amador County.
2. **Mule Creek.** The Facility's MS4 discharges to Mule Creek, a water of the United States. Mule Creek is tributary to Dry Creek which runs into the Mokelumne River. The Central Valley Water Board's Water Quality Control Plan for the Sacramento River and San Joaquin River Basins designates the following beneficial uses for Mokelumne River, Camanche Reservoir and Delta and its tributaries, including Mule Creek: AGR, REC-1, REC-2, WARM, COLD, MIGR, SPWN, and WILD.
3. **Small MS4 General Permit.** The Facility is regulated under the State Water Resources Control Board (State Water Board) National Pollutant Discharge Elimination System General Permit for Waste Discharge Requirements for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems, Water Quality Order 2013-0001-DWQ, as amended (Small MS4 General Permit) as a Non-Traditional MS4.
4. **Storm Water Control Program.** The Small MS4 General Permit requires CDCR to develop and implement a storm water control program for the Facility to

KARL E. LONGLEY ScD, P.E., CHAIR | PATRICK PULUPA, ESQ., EXECUTIVE OFFICER

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reduce the discharge of pollutants from its MS4 to waters of the United States and ensure compliance with applicable water quality requirements.

5. **Excessive Irrigation Discharges.** The Permittee has been submitting weekly monitoring reports since 2018 pursuant to a Water Code Section 13267 Order issued by the Central Valley Water Board on 14 February 2018. Weekly monitoring reports documented large volumes of irrigation water being discharged through the Facility's MS4 into Mule Creek.

A Non-Storm Water Discharge Report (Report) was required to be submitted by 1 February 2021, under a 22 December 2020 Water Code 13383 Order issued by the Central Valley Water Board. The Report required the Permittee to (1) demonstrate how the non-storm water discharge is in compliance with the Discharge Prohibitions in the Small MS4 General Permit; or (2) if the non-storm water discharge does not comply with the Discharge Prohibitions, provide a proposed plan, subject to Central Valley Water Board staff approval, to eliminate the non-storm water discharge. The proposed plan shall include the following: (a) details of proposed best management practices (BMPs) to be implemented to eliminate the non-storm water discharge, (b) details of interim actions to mitigate impact of non-storm water discharges to Mule Creek, (c) implementation schedule of the BMPs, and (d) date for expected compliance with the Discharge Prohibitions.

In accordance with the 22 December 2020 Water Code 13383 Order, the Permittee submitted a Non-Storm Water Discharge Report on 1 February 2021. The Non-Storm Water Discharge Report did not demonstrate compliance with the Small MS4 General Permit Discharge Prohibitions and Central Valley Water Board staff sent a comment letter on 29 June 2021 requesting additional information for a proposed plan (i.e., Non-Storm Water Discharge Elimination Plan) subject to Central Valley Water Board staff approval to eliminate the non-storm water discharge.

The Permittee submitted the Non-Storm Water Discharge Elimination Plan (Plan) on 1 September 2021. According to the Plan, the Permittee has implemented BMPs to minimize non-storm water discharges, which include adjusting the irrigation schedule, returning non-storm water flows to the onsite wastewater treatment plant, and installing flow meters at the internal slide gates, identified as MCSP 5 and MCSP6, to monitor the amount of non-storm water flow being routed to the wastewater treatment plant and any flows passing through the internal slide gates at MCSP5 and MCSP6.

Permanent mitigation of the non-storm water flows is part of the Settlement Agreement and Stipulation for Entry of Administrative Civil Liability Order, Order No. R5-2021-0001, where the Permittee has agreed to an Enhanced Compliance Action (ECA) called the Mule Creek State Prison – Landscape Irrigation System Replacement Project, which will install new piping for the irrigation system. The expected date of completion of the ECA is February 2025. In the interim, the Permittee will continue to implement the BMPs, above, and in addition, will install flow monitoring structures at the Mule Creek MS4 outfalls, identified as MCSP2

and MCSP3, to accurately demonstrate whether non-storm water flows are discharging into Mule Creek. Installation of the permanent monitoring structures at the Mule Creek MS4 outfalls is expected to be completed in November 2021.

6. **Water Code Section 13383.** Under Water Code section 13383, subdivision (a), the regional board “may establish monitoring, inspection, entry, reporting, and recordkeeping requirements . . . for any person who discharges, or proposes to discharge, to navigable waters” The regional board “may require any person subject to this section to establish and maintain monitoring equipment or methods, including, where appropriate, biological monitoring methods, sample effluent as prescribed, and provide other information as may be reasonably required.” (Water Code, § 13383, subd. (b); see also 33 U.S.C. § 1318(a); 40 C.F.R. § 122.41(h).)
7. **Potential Liability for Noncompliance.** Pursuant to Water Code section 13385, any person who violates a requirement established pursuant to section 13383 may be subject to an administrative civil liability up to \$10,000 for each day in which the violation occurs. The Central Valley Water Board may also seek judicially imposed civil liabilities up to \$25,000 for each day in which the violation occurs.
8. **Need for Monitoring and Reporting Requirements.** Due to potential water quality impacts to Mule Creek while the Facility’s storm water control program is being fully developed and implemented and to ensure compliance with Small MS4 General Permit requirements, the Central Valley Water Board has determined that an interim monitoring and reporting program is necessary to monitor MS4 discharges from the Facility to Mule Creek.

The requirements in this Order supplement and do not supersede existing monitoring and reporting requirements under the Small MS4 General Permit.

9. **Delegated Authority.** This Order is issued under authority delegated to the Central Valley Water Board’s Executive Officer pursuant to Resolution R5-2018-0057 and Water Code section 13223.

IT IS HEREBY ORDERED that, pursuant to Water Code section 13383, the 22 December 2020 Water Code Section 13383 Order to Monitor Discharges to Surface Water issued to CDCR is rescinded except for enforcement purposes and CDCR shall comply with the following monitoring and reporting requirements set forth below:

I. REPORTING REQUIREMENTS

- A. **Quarterly Monitoring Report.** Permittee shall submit a Quarterly Monitoring Report by **1 May, 1 August, 1 November, and 1 February annually**. The Quarterly Monitoring Reports shall cover the following periods: (1) 1 January through 31 March, (2) 1 April through 30 June, (3) 1 July through 30 September, and (4) 1 October through December. The Quarterly Monitoring Report shall provide monitoring data and toxicity test results for the quarter and a copy of all sample documents, including chain of custody forms, toxicity test results, and all associated laboratory documents

- B. **Annual Report.** The Small MS4 General Permit requires an Annual Report to be submitted by 15 October. The following additional information shall be included in the Annual Report:

1. Toxicity Testing

- a) The dates of sample collection and initiation of each toxicity test;
- b) A summary of the reported toxicity test results according to the test methods manual chapter on report preparation and test review; and
- c) All results for MS4 outfall parameters monitored concurrently with the toxicity test(s).

2. Monitoring data for the fiscal year covering 1 July through 30 June.

- C. **Discharge Notification.** The Permittee shall notify the Central Valley Water Board within 24 hours of the Facility discharging through the MS4 to the receiving water. Notification shall be submitted into the SMARTS database and via e-mail to: RB5S-CentralValleySacramento@waterboards.ca.gov.

- D. **Certification.** Any person signing a document submitted under this Order shall make the following Certification:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my knowledge and on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

- E. **Submission.** All reports, notifications, and monitoring data shall be submitted into the SMARTS database. The monitoring data must be in an electronic format where the data can be manipulated.

II. MONITORING REQUIREMENTS

- A. **Monitoring Samples.** Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring locations specified below and, unless otherwise specified, before the monitored flow joins or is diluted by any other waste stream, body of water, or substance.
- B. **Quality Assurance and Control.** Chemical, bacteriological, and bioassay analyses of any material required by this Order shall be conducted by a laboratory accredited for such analyses by the State Water Board, Division of

Drinking Water (DDW), in accordance with the provision of Water Code section 13176. Laboratories that perform sample analyses must be identified in all monitoring reports submitted to the Central Valley Water Board. Data generated from field measurements such as pH, dissolved oxygen (DO), electrical conductivity (EC), turbidity, and temperature are exempt pursuant to Water Code Section 13176. A manual containing the steps followed in this program for any field measurements such as pH, DO, EC, turbidity, and temperature must be kept onsite and shall be available for inspection by Central Valley Water Board staff. The Permittee must demonstrate sufficient capability (qualified and trained employees, properly calibrated and maintained field instruments, etc.) to adequately perform these field measurements. The Quality Assurance-Quality Control Program must conform to U.S. EPA guidelines or to procedures approved by the Central Valley Water Board.

- C. **Monitoring Instruments and Devices.** Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. All monitoring instruments and devices used by the Permittee to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary, at least yearly, to ensure their continued accuracy. All flow measurement devices shall be calibrated at least once per year to ensure continued accuracy of the devices.
- D. **Analytical Methods.** The Permittee shall use the laboratory analytical methods in accordance with the Analytical Methods Report, submitted by the Permittee on 15 September 2020.

III. MONITORING LOCATIONS

- A. **Monitoring Locations.** The Permittee shall establish the monitoring locations identified in Table A.
- B. **Executive Officer Approval.** Monitoring locations shall not be changed without notification to and the approval of the Executive Officer.

Table A. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description ¹
--	RAIN-1	Rain gage located at the Mule Creek Wastewater Treatment Plant
--	MCSP1 (RSW-001)	Upstream receiving water location
001	MCSP5 (OUTFALL-1)	MS4 slide gate
001-W	MCSP5-W	MS4 diversion to the Mule Creek Wastewater Treatment Plant

Discharge Point Name	Monitoring Location Name	Monitoring Location Description¹
002	MCSP6 (OUTFALL-2)	MS4 slide gate
002-W	MCSP6-W	MS4 diversion to the Mule Creek Wastewater Treatment Plant
003	MCSP2 (OUTFALL-3)	MS4 outfall into Mule Creek
004	MCSP3 (OUTFALL-4)	MS4 outfall into Mule Creek
--	MCSP4 (RSW-002)	Downstream receiving water location approximately 200 feet downstream (south) of MCSP3.
--	IRR	Irrigation Flow Meter

Table Notes:

1. Monitoring locations are shown in Figure 1 of this Order.

IV. MS4 OUTFALL MONITORING REQUIREMENTS

Effective immediately and until the Permittee provides notification to Central Valley Water Board staff that the flow monitoring structures are operational at Discharge Points 003 and 004, when discharging through the MS4 at 001, the Permittee shall monitor discharges from the Facility at Monitoring Location MCSP5, as shown in Table B. When discharging at 002, the Permittee shall monitor discharges at Monitoring Location MCSP6, as shown in Table B.

Effective upon notification of Central Valley Water Board staff that the flow monitoring structures at Discharge Points 003 and 004 are operational, the Permittee may discontinue monitoring discharges at 001 and 002 and begin monitoring discharges at 003 and 004. When discharging through the MS4 at 003, the Permittee shall monitor MS4 outfall discharges at MCSP2, as shown in Table B, and when discharging at 004, the Permittee shall monitor discharges at MCSP3, as shown in Table B.

MS4 outfall monitoring shall be collected concurrently (i.e., within four (4) hours) with receiving water monitoring specified in Table C.

Table B. MS4 Outfall Monitoring

Parameter¹	Units	Sample Type	Minimum Sampling Frequency
Total Volume Discharged during Event	Million Gallons	Calculated	1/event
Start of Discharge Event	Time	Gage	1/event
End of Discharge Event	Time	Gage	1/event
Duration of Discharge Event	Hours	Calculated	1/event

Parameter ¹	Units	Sample Type	Minimum Sampling Frequency
Biochemical Oxygen Demand 5-day @ 20°C (BOD)	mg/L	Grab	1/event
Chemical Oxygen Demand (COD)	mg/L	Grab	1/event
Dissolved Organic Carbon (DOC)	mg/L	Grab	1/event
Dissolved Oxygen	mg/L	Grab	1/event
Electrical Conductivity (EC) @ 25°C	µmhos/cm	Grab	1/event
Oil & Grease	mg/L	Grab	1/ event
Ammonia (Total as N)	mg/L	Grab	1/ event
pH	Standard Units	Grab	1/ event
Settleable Solids	ml/L	Grab	1/ event
Temperature	°C	Grab	1/ event
Total Dissolved Solids (TDS)	mg/L	Grab	1/ event
Total Hardness, (as CaCO ₃)	mg/L	Grab	1/ event
Total Suspended Solids (TSS)	mg/L	Grab	1/ event
Turbidity	NTU	Grab	1/ event
E. coli	CFU/100 mL	Grab	1/ event
Aluminum, Total recoverable ²	µg/L	Grab	1/ event
Arsenic, Total recoverable	µg/L	Grab	1/ event
Copper, Dissolved	µg/L	Grab	1/ event
Iron, Total Recoverable ²	µg/L	Grab	1/ event
Lead, Dissolved	µg/L	Grab	1/ event
Manganese, Total Recoverable ²	µg/L	Grab	1/ event
Zinc, Dissolved	µg/L	Grab	1/ event
Volatile Organic Compounds (VOCs) per EPA Method 8260	µg/L	Grab	1/ event

Table Notes:

1. Analytical Methods. All parameters shall be analyzed using the analytical methods described in 40 CFR Part 136, unless approved by the Executive Officer.
2. Aluminum, Manganese, and Iron. Samples may be passed through a 1.5-micron filter to reduce filterable residue prior to analysis. Filter size recommended in EPA Approved Methods 30 CFR Part 136 for Total Dissolved Solids and Total Suspended Solids and is used for removing

suspended solids from a solid prior to analysis. Filtering the sample will remove suspended solids that may contribute to turbidity and color in samples that may negatively impact analytical results for metal concentrations while better representing the dissolved solids that may pass through a water treatment plant's filtration system.

3. For 1/event monitoring, an event begins when there is a discharge from 001 and/or 002, or when operational, 003 and/or 004. The discharge out of 001 and/or 002, or 003 and/or 004 may stop and start throughout a single event but is considered a single event until the discharge ceases AND there has been at least seven (7) days between precipitation events.

V. RECEIVING WATER MONITORING REQUIREMENTS

When discharging through the MS4 to Mule Creek, the Permittee shall monitor receiving water at Monitoring Locations MCSP1 and MCSP4 as shown in Table C. Receiving water monitoring shall be collected concurrently with MS4 outfall monitoring (i.e., within four (4) hours). If there is no upstream flow in Mule Creek (i.e., steady, and continuous stream) during the monitoring event, receiving water monitoring is not required and the Permittee shall note that in the Quarterly Monitoring Report.

Table C. Receiving Water Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Dissolved Organic Carbon (DOC)	mg/L	Grab	1/event
Dissolved Oxygen (DO)	mg/L	Grab	1/ event
Electrical Conductivity (EC) @ 25°C	µmhos/cm	Grab	1/ event
pH	Standard Units	Grab	1/ event
Temperature	°C	Grab	1/ event
Total Hardness (as CaCO ₃)	mg/L	Grab	1/ event
Total Suspended Solids (TSS)	mg/L	Grab	1/ event
Turbidity	NTU	Grab	1/ event
E. coli	CFU/100 mL	Grab	1/ event
Aluminum, Total Recoverable ²	µg/L	Grab	1/ event
Arsenic, Total recoverable	µg/L	Grab	1/ event
Copper, Dissolved	µg/L	Grab	1/ event
Iron, Total Recoverable ²	µg/L	Grab	1/ event
Lead, Dissolved	µg/L	Grab	1/event

Parameter	Units	Sample Type	Minimum Sampling Frequency
Manganese, Total Recoverable ²	µg/L	Grab	1/ event
Zinc, Dissolved	µg/L	Grab	1/ event

Table Notes:

1. Analytical Methods. All parameters shall be analyzed using the analytical methods described in 40 CFR part 136, unless approved by the Executive Officer.
2. Aluminum, Manganese, and Iron. Samples may be passed through a 1.5-micron filter to reduce filterable residue prior to analysis. Filter size recommended in EPA Approved Methods 30 CFR Part 136 for Total Dissolved Solids and Total Suspended Solids and is used for removing suspended solids from a solid prior to analysis. Filtering the sample will remove suspended solids that may contribute to turbidity and color in samples that may negatively impact analytical results for metal concentrations while better representing the dissolved solids that may pass through a water treatment plant's filtration system.
3. For 1/event monitoring, an event begins when there is a discharge from 001 and/or 002, or when operational, 003 and/or 004. The discharge out of 001 and/or 002, or 003 and/or 004 may stop and start throughout a single event but is considered a single event until the discharge ceases AND there has been at least seven (7) days between precipitation events.

VI. OTHER MONITORING REQUIREMENTS

Effective immediately, the Permittee shall monitor at 001-W and 002-W for flows diverted to the Mule Creek Wastewater Treatment Plant, as shown in Table D. Irrigation volume shall be monitored at IRR and rainfall amount shall be monitored at RAIN-1, as shown in Table D.

Table D. Other Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Total Daily Flow Diverted to the Mule Creek Wastewater Treatment Plant	Million Gallons	Calculated	daily

Parameter	Units	Sample Type	Minimum Sampling Frequency
Total Daily Irrigation Volume	Gallons	Calculated/Gage	daily
Rainfall, 24-hour total	Inches	Gage	daily

VII. WATER COLUMN TOXICITY TESTING REQUIREMENTS

A. Acute Toxicity Testing. The Permittee shall conduct acute toxicity testing to determine whether the MS4 discharge is contributing to acute toxicity to the receiving water. The Permittee shall meet the following acute toxicity testing requirements:

1. *Monitoring Frequency* – While discharging and concurrent with MS4 outfall constituent sampling required in V, above, the Permittee shall perform acute toxicity testing twice per year (i.e., one sample January – June and another sample July – December).
2. *Sample Types* – The Permittee shall use static renewal testing. The receiving water samples shall be grab samples and shall be taken at MCSP1 and MCSP4. A sufficient sample must be collected to perform the required tests.
3. *Test Species* – The test species shall be fathead minnows (*Pimephales promelas*).
4. *Methods* – The acute toxicity testing samples shall be analyzed using EPA-821-R-02-012 (Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition, USEPA, October 2002, or most recent edition).
5. *Test Failure* – If an acute toxicity test does not meet all test acceptability criteria, as specified in the test method, the Permittee must re-sample and re-test to satisfy the monitoring frequency requirement (i.e., twice per year sampling).

VIII. EFFECTIVE DATE

This Order is effective immediately and remains in effect until rescinded by the Executive Officer.

IX. RIGHT TO PETITION

Persons aggrieved by this Central Valley Water Board action may petition the State Water Board for review in accordance with Water Code section 13320, and California Code of Regulations, title 23, section 2050 et seq. The State Water Board must receive the petition by 5pm on the 30th day after the date of this

Order, except that if the 30th day falls on a Saturday, Sunday or State holiday, in which case the petition must be received by the State Water Board by 5pm on the next business day. [Laws and regulations applicable to filing petitions](#) are available on the internet (at the address below), and copies will also be provided upon request.

(http://www.waterboards.ca.gov/public_notices/petitions/water_quality)

If you have any questions, please contact Elizabeth Lee at (916) 464-4787 or at Elizabeth.Lee@waterboards.ca.gov.

Adam
Laputz



Digitally signed by Adam
Laputz
Date: 2021.11.30 15:10:37
-08'00'

For Patrick Pulupa
Executive Officer

Attachment: Figure 1 – Mule Creek State Prison Water Sampling Locations, dated
June 2018

cc: next page

cc: [via E-mail]
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Nickolaus Knight, Office of Enforcement, State Water Resources Control Board
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Figure 1 – Mule Creek State Prison Water Sampling Locations

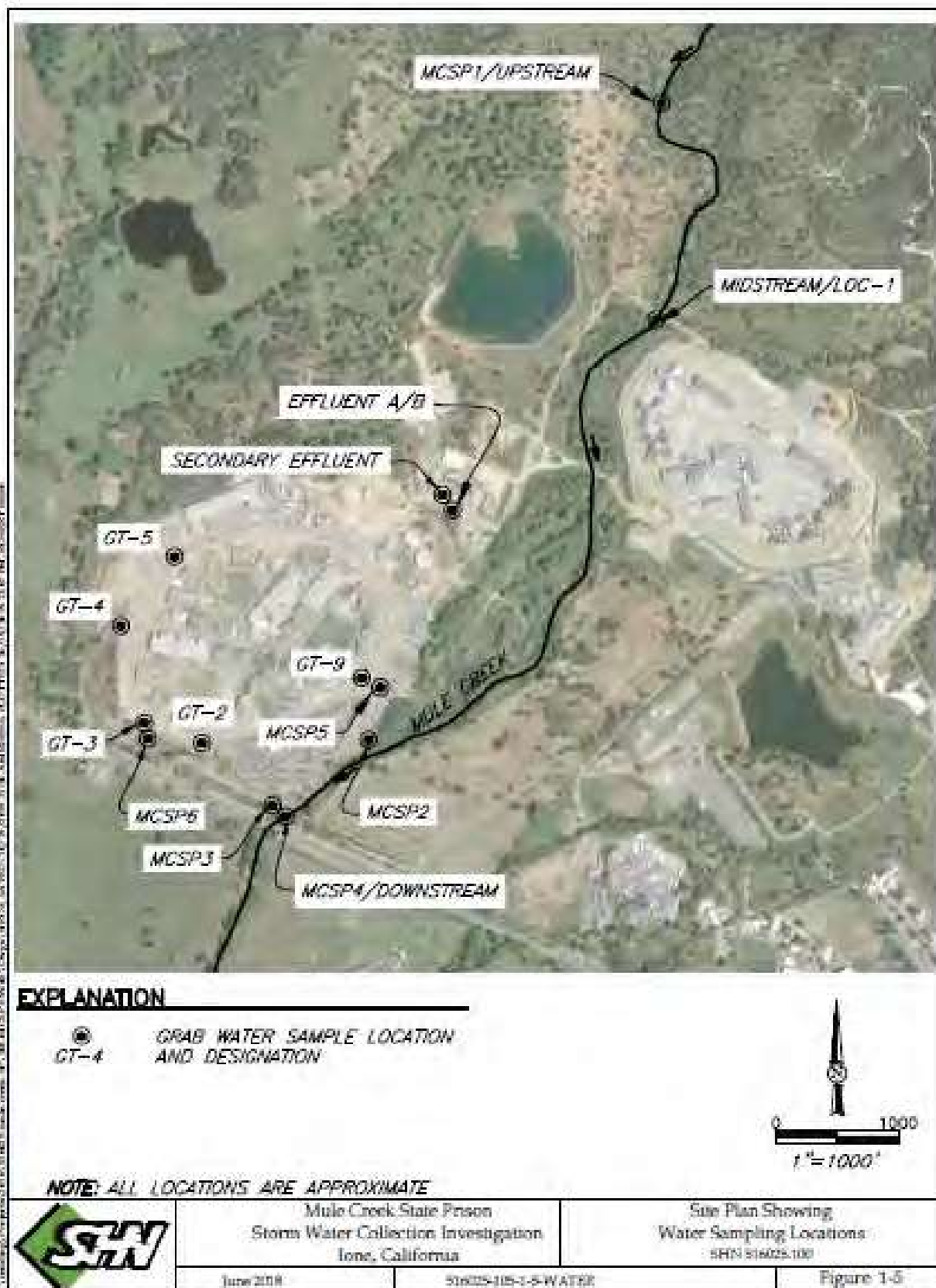


EXHIBIT “9”

**THE WATER QUALITY CONTROL PLAN (BASIN PLAN)
FOR THE
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION**

FIFTH EDITION

Revised May 2018 (with Approved Amendments)

**THE SACRAMENTO RIVER BASIN AND
THE SAN JOAQUIN RIVER BASIN**



**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION**

Karl E. Longley, Chair
Denise Kadara, Vice-Chair
Jon Costantino, Member
Carmen L. Ramirez, Member
Robert (Bob) Schneider, Member
Raji Brar, Member
Daniel B. Marcum, Member

Pamela C. Creedon, Executive Officer

COVER PHOTO ACKNOWLEDGMENTS:

Rafting the American River: Rapid Shooters, Lotus CA
Yosemite: David Rosen/ Ducks Unlimited

Sunset Waterfowl: David Rosen/ Ducks Unlimited
Sugar Beets: Brenda Grewell/ Dept. of Water Resource

Basin plan amendments adopted by the Regional Central Valley Water Board must be approved by the State Water Board and the Office of Administrative Law before becoming effective. If the amendment involves adopting or revising a standard which relates to surface waters it must also be approved by the U.S. Environmental Protection Agency (USEPA) before becoming effective. However, standards revisions disapproved by USEPA prior to 30 May 2000 remain in effect until they are revised by the basin planning process, or USEPA promulgates its own rule to supersede the standard revision [40 CFR Section 131.21(c)]

Each version of the Basin Plan includes all amendments that are in effect as of the date of the version. It is the intent of the Central Valley Water Board to release updated editions of the Basin Plan as soon as adopted amendments are approved and in effect

The following are all the amendments adopted by the Regional Water Board since 1975, that are now in effect:

Subject	Date Adopted By Reg. Bd.	Regional Board Resolution No.	Date in Effect
1. Adopting Water Quality Control Plans for Sacramento River Basin, Sacramento-San Joaquin Delta Basin, San Joaquin River Basin and Tulare Lake Basin	7/25/1975	R5-1975-0185	8/21/1975
2. Revision and Amendment of the Water Quality Control Plan, Sacramento River Basin, by the Addition of a Prohibition of Waste Discharge from Leaching and Percolation Systems within the Adin Community Services District, Modoc County	11/21/1975	R5-1975-0272	1/22/1976
3. Revision and Amendment of the Water Quality Control Plan, Sacramento River Basin, by the Addition of a Prohibition of Waste Discharge from Leaching and Percolation Systems within the Community of Fall River Mills, a portion of the Fall River Mills Community Services District, Shasta County	11/21/1975	R5-1975-0273	1/22/1976
4. Revision and Amendment of the Water Quality Control Plan, Sacramento River Basin, by the Addition of a Prohibition of Waste Discharge from Leaching and Percolation Systems within the Bell Road Community (including Panorama and Pearl Subdivisions) Auburn, Placer County	11/21/1975	R5-1975-0274	1/22/1976

Subject	Date Adopted By Reg. Bd.	Regional Board Resolution No.	Date in Effect
5. Revision and Amendment of the Water Quality Control Plan, Sacramento River Basin, by the Addition of a Prohibition of Waste Discharge from Leaching and Percolation Systems within the Communities of Nice and Lucerne, Lake County	2/27/1976	R5-1976-0058	4/15/1976
6. Revision and Amendment of the Water Quality Control Plan, Sacramento-San Joaquin Delta Basin, by the Addition of a Prohibition of Waste Discharge from Leaching and Percolation Systems within the Courtland Sanitation District, Sacramento County	2/27/1976	R5-1976-0059	4/15/1976
7. Revision and Amendment of the Water Quality Control Plan, San Joaquin River Basin, by the Addition of a Prohibition of Waste Discharge from Leaching and Percolation Systems within Six-Mile Village, Calaveras County	2/27/1976	R5-1976-0060	4/15/1976
8. Revision and Amendment of the Water Quality Control Plan, Sacramento River Basin, by the Addition of a Prohibition of Waste Discharge from Leaching and Percolation Systems within the Communities of Clearlake Highlands and Clearlake Park, Lake County	3/26/1976	R5-1976-0089	5/20/1976
9. Revision and Amendment of the Water Quality Control Plan, Sacramento River Basin, by the Addition of a Prohibition of Waste Discharge from Leaching and Percolation Systems within the Taylorville County Service Area, Plumas County	5/28/1976	R5-1976-0129	8/19/1976
10. Revision and Amendment of the Water Quality Control Plan, Sacramento River Basin, by the Addition of a Prohibition of Waste Discharge from Leaching and Percolation Systems within the Community of South Lakeshore Assessment District, Lake County	9/24/1976	R5-1976-0215	4/21/1977

Subject	Date Adopted By Reg. Bd.	Regional Board Resolution No.	Date in Effect
11. Revision and Amendment of the Water Quality Control Plan, Sacramento River Basin, by the Addition of a Prohibition of Waste Discharge from Leaching and Percolation Systems within the Anderson-Cottonwood Irrigation District, Community of Cottonwood, Shasta County	10/22/1976	R5-1976-0230	1/20/1977
12. Revision and Amendment of the Water Quality Control Plan, Sacramento River Basin, by the Addition of a Prohibition of Waste Discharge from Leaching and Percolation Systems within the Daphnedale Area, Modoc County	10/22/1976	R5-1976-0231	1/20/1977
13. Amending the Water Quality Control Plan for Sacramento River Basin, Sacramento-San Joaquin Delta Basin, and San Joaquin River Basin	12/17/1976	R5-1976-0262	2/17/1977
14. Amending the Water Quality Control Plan for Removal of Waste Discharge Prohibition for Woods Creek, Tuolumne County	5/27/1977	R5-1977-0097	7/21/1977
15. Adoption of Amendments to the Water Quality Control Plan	6/22/1979	R5-1979-0149	8/16/1979
16. Adoption of Amendments to the Water Quality Control Plan	7/27/1979	R5-1979-0180	8/16/1979
17. Adoption of Amendments to the Water Quality Control Plan for Groundwater Management in N.E. Fresno County and Surface Water Runoff Management in Solano County	9/28/1979	R5-1979-0220	10/18/1979

Subject	Date Adopted By Reg. Bd.	Regional Board Resolution No.	Date in Effect
18. Adoption of Amendments to the Water Quality Control Plan for Wastewater Management in the Communities of Paradise and Magalia in Butte County and Erosion Control and Creek Bed Management in Lake County and Wastewater Management in the Lake Yosemite Area of Merced County and Erosion Control and Wastewater Management in Mariposa County	12/14/1979	R5-1979-0255	2/21/1980
19. Adoption of Amendments to the Water Quality Control Plan for Best Management Practices for Control of Erosion from Land Development Activities in Shasta County and Best Management Practices for Control of Erosion and Use of Individual Wastewater Disposal Systems in Nevada County	12/5/1980	R5-1980-0219	2/19/1981
20. Amending the Water Quality Control Plan for Removal of Waste Discharge Prohibition for Jackson Creek above Jackson Creek Reservoir, Amador County	1/28/1983	R5-1983-0018	4/21/1983
21. Adoption of an Amendment to Part I of the Water Quality Control Plans for the Sacramento River, Sacramento-San Joaquin Delta, San Joaquin River, and Tulare Lake Basins for Land Disposal of Stillage Waste from Wineries	8/12/1983	R5-1983-0105	12/15/1983
22. Amending the Water Quality Control Plan for Guidelines for Protection of Water Quality During Construction and Operation of Small Hydro Projects	10/28/1983	R5-1983-0135	3/15/1984
23. Amending the Water Quality Control Plan for Water Quality Objectives for Copper (Cu), Zinc (Zn) and Cadmium (Cd) in the Upper Sacramento River Basin	4/27/1984	R5-1984-0054	8/16/1984

Subject	Date Adopted By Reg. Bd.	Regional Board Resolution No.	Date in Effect
24. Revision and Amendment of the Water Quality Control Plan, Sacramento River Basin, by the Addition of Prohibition of Waste Discharge from Individual Disposal Systems in the Chico Urban Area, Butte County	10/27/1988	R5-1988-0177	10/19/1989
25. Adoption of Amendments to the Water Quality Control Plan for the San Joaquin River Basin	12/8/1988	R5-1988-0195	9/21/1989
26. Amendment of the Water Quality Control Plan for the Sacramento River, Sacramento-San Joaquin Delta, and San Joaquin Basins	3/31/1989	R5-1989-0056	3/22/1990
27. Amendment of the Water Quality Control Plan for the Sacramento River, Sacramento-San Joaquin Delta, and San Joaquin Basins	1/26/1990	R5-1990-0028	2/15/1990
28. Revision of the Water Quality Control Plan, Sacramento River Basin, by the Addition of Prohibition of Waste Discharge from Individual Disposal Systems in the Chico Urban Area, Butte County	4/27/1990	R5-1990-0126	7/19/1990
29. Water Quality Control Plan Amendment for City of West Sacramento Wet Weather Municipal Waste Discharge, Yolo County	11/22/1991	R5-1991-0207	5/18/1992
30. Amendment of the Water Quality Control Plan for the Sacramento River, Sacramento-San Joaquin Delta, and San Joaquin Basins	12/9/1994	R5-1994-0380	5/9/1995
31. Amending the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins to include Compliance Schedules	5/26/1995	R5-1995-0142	9/25/1995
32. Amending the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins to Address the Control of Agricultural Subsurface Drainage	5/3/1996	R5-1996-0147	1/10/1997

Subject	Date Adopted By Reg. Bd.	Regional Board Resolution No.	Date in Effect
33. Adoption of Site Specific Water Quality Objectives for pH and Turbidity for Deer Creek in El Dorado County	7/19/2002	R5-2002-0127	10/21/2003
34. Adoption of Corrective Language Adoption of a Control Program for Mercury in Clear Lake, including COMM use for Clear Lake and Mercury Objectives for Fish Tissue	9/6/2002	R5-2002-0151	1/27/2004
35. Adoption of a Control Program for Mercury in Clear Lake, including COMM use for Clear Lake and Mercury Objectives for Fish Tissue	12/6/2002	R5-2002-0207	10/2/2003
36. Adoption of a Control Program for Orchard Pesticide Runoff and Diazinon Runoff into the Sacramento and Feather Rivers, including Site-Specific Water Quality Objectives for Diazinon	10/16/2003	R5-2003-0148	8/11/2004
37. Adoption of Site Specific Temperature Objectives for Deer Creek in El Dorado and Sacramento Counties	1/31/2003 9/16/2005	R5-2003-0006 R5-2005-0119	5/17/2006
38. Amendment for the Control of Salt and Boron Discharges into the Lower San Joaquin River	9/10/2004	R5-2004-0108	7/28/2006
39. Amendment to De-Designate Four Beneficial Uses of Old Alamo Creek, Solano County	4/28/2005	R5-2005-0053	8/7/2006
40. Amendment for the Control Program for Factors Contributing to the Dissolved Oxygen Impairment in the Stockton Deep Water Ship Channel	1/27/2005	R5-2005-0005	8/23/2006
41. Amendment for the Control of Diazinon and Chlorpyrifos Runoff into the San Joaquin River	10/21/2005	R5-2005-0138	12/20/2006
42. Amendment for the Control of Mercury in Cache creek, Bear Creek, Sulphur Creek and Harley Gulch	10/21/2005	R5-2005-0146	2/6/2007

Subject	Date Adopted By Reg. Bd.	Regional Board Resolution No.	Date in Effect
43. Amendment for the Control of Nutrients in Clear Lake	6/23/2006	R5-2006-0060	7/12/2007
44. Amendment for the Control of Diazinon and Chlorpyrifos Runoff into the Sacramento-San Joaquin Delta	6/23/2006	R5-2006-0061	10/10/2007
45. Amendment for the Control of Diazinon and Chlorpyrifos Runoff into the Sacramento and Feather Rivers	5/3/2007	R5-2007-0034	8/11/2008
46. Amendment to Revise Water Quality Objectives for pH and Turbidity	10/25/2007	R5-2007-0136	7/7/2009
47. Amendment to Determine Certain Beneficial Uses are not Applicable and Establish Water Quality Objectives in Sulphur Creek, Colusa County	3/16/2007	R5-2007-0021	9/4/2009
48. Non-Regulatory Amendments to Correct Editing Errors and Update Language	8/13/2009	R5-2009-0069	5/18/2011
49. Amendments to Control Methylmercury and Total Mercury in the Sacramento-San Joaquin Delta Estuary	4/22/2010	R5-2010-0043	10/20/2011
50. Non-Regulatory Amendments to Provide a Cost Estimate and Potential Sources of Financing for a Long-Term Irrigated Lands Program	10/13/2011	R5-2011-0075	12/14/2012
51. Amendments to Establish Site-Specific Water Quality Objectives for Chloroform, Chlorodibromomethane, and Dichlorobromomethane for New Alamo and Ulatis Creeks, Solano County, and Permit Implementation Provisions	5/27/2010	R5-2010-0047	4/9/2013 [*]
52. Amendments for the Control of Selenium in the Lower San Joaquin River Basin	5/27/2010	R5-2010-0046	11/7/2013

^{*} For R5-2010-0047, U.S. Environmental Protection Agency specifically did not approve the implementation provisions.

Subject	Date Adopted By Reg. Bd.	Regional Board Resolution No.	Date in Effect
53. Amendment to Establish a Drinking Water Policy for Surface Waters of the Delta and Its Upstream Tributaries	7/26/2013	R5-2013-0098	11/20/2014
54. Amendments to the Water Quality Control Plans for the Sacramento River and San Joaquin River Basins and the Tulare Lake Basin Regarding Onsite Wastewater System Implementation Program	3/27/2014	R5-2014-0036	1/26/2015
55. Amendments to Edit and Update Language	3/27/2014	R5-2014-0037	1/26/2015
56. Amendment to Provide a Groundwater Regulatory Framework Towards Closure of the Royal Mountain King Mine Site, Calaveras County	3/28/2014	R5-2014-0047	6/17/2015
57. Amendment to Remove the Municipal and Domestic Supply (MUN) Beneficial Use in Twelve Constructed and/or Modified Water Bodies in the Sacramento River Basin that Receive Treated Municipal Wastewater from the Cities of Biggs, Colusa, Live Oak or Willows	4/16/2015	R5-2015-0022	4/21/2016
58. Amendments to the Water Quality Control Plans for the Sacramento River and San Joaquin River Basins and the Tulare Lake Basin to Add Policies for Variances from Surface Water Quality Standards for Point Source Dischargers, Variance Program for Salinity, and Exception from Implementation of Water Quality Objectives for Salinity	6/6/2014	R5-2014-0074	7/8/2016
59. Amendment to the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins for the Control of Diazinon and Chlorpyrifos Discharges	3/28/2014	R5-2014-0041	8/16/2017
60. Amendments to Reformat the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins and Water Quality Control Plan for the Tulare Lake Basin	10/20/2017	R5-2017-0106	5/24/2018

Amendments to the Water Quality Control Plan for the
Sacramento River and San Joaquin River Basins

May 2018

Table of Contents

i	Foreword to the Fourth Edition (1998)	i
1	Introduction	1-1
1.1	Basin Description	1-1
1.1.1	Sacramento River Basin	1-1
1.1.2	San Joaquin River Basin	1-2
2	Existing and Potential Beneficial Uses	2-1
2.1	Surface Waters	2-3
2.2	Ground Waters	2-3
2.2.1	Beneficial Use De-designations	2-4
3	Water Quality Objectives	3-1
3.1	Water Quality Objectives for Inland Surface Waters	3-3
3.1.1	Bacteria	3-3
3.1.2	Biostimulatory Substances	3-3
3.1.3	Chemical Constituents	3-3
3.1.4	Cryptosporidium and Giardia	3-6
3.1.5	Color	3-6
3.1.6	Dissolved Oxygen	3-6
3.1.7	Floating Material	3-7
3.1.8	Mercury	3-7
3.1.9	Methylmercury	3-7
3.1.10	Oil and Grease	3-8
3.1.11	pH	3-8
3.1.12	Pesticides	3-8
3.1.13	Radioactivity	3-11
3.1.14	Salinity	3-12
3.1.15	Sediment	3-13
3.1.16	Settleable Material	3-13
3.1.17	Suspended Material	3-13
3.1.18	Tastes and Odors	3-13
3.1.19	Temperature	3-13
3.1.20	Toxicity	3-15
3.1.21	Turbidity	3-15
3.2	Water Quality Objectives for Ground Waters	3-16
3.2.1	Bacteria	3-16
3.2.2	Chemical Constituents	3-16
3.2.3	Radioactivity	3-17
3.2.4	Tastes and Odors	3-17
3.2.5	Toxicity	3-17

4	Implementation.....	4-1
4.1	Water Quality Concerns.....	4-1
4.1.1	Agriculture	4-2
4.1.2	Silviculture	4-4
4.1.3	Municipalities and Industries	4-4
4.1.4	Storm Water	4-5
4.1.5	Mineral Exploration and Extraction.....	4-5
4.1.6	Hazardous and Non-Hazardous Waste Disposal	4-6
4.1.7	Contaminated Sites Threatening Ground Water Quality	4-7
4.1.8	Drinking Water Policy	4-7
4.1.9	Other Discharge Activities	4-9
4.1.10	Water Bodies with Special Water Quality Problems.....	4-10
4.2	The Nature of Control Actions Implemented by The Regional Water Board	4-10
4.2.1	Control Action Considerations of the State Water Board	4-11
4.2.2	Control Action Considerations of the Central Valley Regional Water Board	4-21
4.3	Actions Recommended for Implementation by Other Entities	4-53
4.3.1	Recommended for Implementation by the State Water Board	4-54
4.3.2	Recommended for Implementation by Other Agencies	4-56
4.4	Continuous Planning for Implementation of Water Quality Control.....	4-58
4.5	Actions and Schedule to Achieve Water Quality Objectives.....	4-59
4.5.1	Agricultural Drainage Discharges in the San Joaquin River Basin	4-59
4.5.2	Assessment of Biototoxicity of Major Point and Nonpoint Source Discharges in the Sacramento River and San Joaquin River Basins.....	4-71
4.5.3	Heavy Metals From Point and Nonpoint Sources.....	4-72
4.5.4	Mercury Discharges in the Sacramento River and San Joaquin River Basins	4-73
4.5.5	Pesticide Discharges	4-112
4.5.6	Dredging in the Sacramento River and San Joaquin River Basins	4-123
4.5.7	Nitrate Pollution of Ground Water in the Sacramento and San Joaquin River Basins .	4-123
4.5.8	Temperature and Turbidity Increases Below Large Water Storage and Diversion Projects in the Sacramento River Basin	4-124
4.5.9	Control Program for Factors Contributing to the Dissolved Oxygen Impairment in the Stockton Deep Water Ship Channel (DWSC) (Regional Water Board Resolution No. R5-2005-0005)	4-124
4.5.10	Clear Lake Nutrients	4-127
4.5.11	Point Source Discharges Containing Trihalomethanes Lower New Alamo and Ulatis Creeks	4-128
4.6	Estimated Costs of Agricultural Water Quality Control Programs and Potential Sources of Financing	4-130
4.6.1	San Joaquin River Subsurface Agricultural Drainage Control Program	4-130
4.6.2	Lower San Joaquin River Salt and Boron Control Program	4-131
4.6.3	Pesticide Control Program.....	4-131

4.6.4	Sacramento and Feather Rivers Diazinon and Chlorpyrifos Runoff Control Program	4-131
4.6.5	San Joaquin River Dissolved Oxygen Control Program	4-131
4.6.6	Diazinon and Chlorpyrifos Runoff into the San Joaquin River Control Program	4-132
4.6.7	Diazinon and Chlorpyrifos Runoff into the Sacramento-San Joaquin Delta Waterways	4-132
4.6.8	Clear Lake Nutrient Control Program	4-133
4.6.9	Delta Mercury Control Program	4-133
4.6.10	Long-Term Irrigated Lands Regulatory Program	4-133
4.6.11	Drinking Water Policy	4-134
4.6.12	Diazinon and Chlorpyrifos Discharges	4-134
5	Surveillance and Monitoring	5-1
5.1	Data Collected by Other Agencies	5-1
5.2	Regional Water Board and State Water Board Monitoring Programs	5-2
5.3	Special Studies	5-2
5.4	Aerial Surveillance	5-3
5.5	Self-Monitoring	5-3
5.6	Compliance Monitoring	5-3
5.7	Complaint Investigation	5-3
5.8	Mercury and Methylmercury	5-3
5.8.1	Clear Lake	5-4
5.8.2	Cache Creek, Bear Creek, Harley Gulch, and Sulphur Creek	5-4
5.8.3	Delta	5-5
5.9	Diazinon and Chlorpyrifos Runoff into the Sacramento and Feather Rivers	5-7
5.10	Diazinon and Chlorpyrifos Runoff in the San Joaquin River Basin	5-7
5.11	Diazinon and Chlorpyrifos Runoff into the Sacramento-San Joaquin Delta Waterways	5-8
5.12	Clear Lake Nutrients	5-9
5.13	Drinking Water Policy	5-9
5.13.1	Cryptosporidium and Giardia Monitoring	5-9
5.13.2	Organic carbon, salinity, and nutrients	5-9
5.14	Diazinon and Chlorpyrifos Discharges	5-10
5.14.1	Agricultural Discharge Monitoring	5-10
5.14.2	Municipal Storm Water and Municipal and Domestic Wastewater Monitoring	5-11
6	Glossary	6-1
	Regional Water Board: California Regional Water Quality Control Board, Central Valley Region (Wat. Code, § 13203)	6-1
	State Water Board: State Water Resources Control Board	6-1

I Foreword to the Fourth Edition (1998)

The preparation and adoption of water quality control plans (Basin Plans) is required by the California Water Code (Section 13240) and supported by the Federal Clean Water Act. Section 303 of the Clean Water Act requires states to adopt water quality standards which "consist of the designated uses of the navigable waters involved and the water quality criteria for such waters based upon such uses." According to Section 13050 of the California Water Code, Basin Plans consist of a designation or establishment for the waters within a specified area of beneficial uses to be protected, water quality objectives to protect those uses, and a program of implementation needed for achieving the objectives. State law also requires that Basin Plans conform to the policies set forth in the Water Code beginning with Section 13000 and any state policy for water quality control. Since beneficial uses, together with their corresponding water quality objectives, can be defined per federal regulations as water quality standards, the Basin Plans are regulatory references for meeting the state and federal requirements for water quality control (40 CFR 131.20). One significant difference between the state and federal programs is that California's basin plans establish standards for ground waters in addition to surface waters.

Basin Plans are adopted and amended by Regional Water Boards under a structured process involving full public participation and state environmental review. Basin Plans and amendments thereto, do not become effective until approved by the State Water Resources Control Board (State Water Board). Regulatory provisions must be approved by the Office of Administrative Law. Adoption or revision of surface water standards are subject to the approval of the U.S. Environmental Protection Agency.

Basin Plans complement water quality control plans adopted by the State Water Board, such as the Water Quality Control Plans for Temperature Control and Ocean Waters. It is the intent of the State and Regional Water Boards to maintain the Basin Plans in an updated and readily available edition that reflects the current water quality control program.

This Basin Plan covers the entire Sacramento and San Joaquin River Basins. A separate Basin Plan covers the Tulare Lake Basin. The Basin Plan was first adopted in 1975. In 1989, a second edition was published. The second edition incorporated all the amendments which were adopted and approved since 1975, updated the Basin Plan to include new state policies and programs, restructured and edited the Basin Plan for clarity, and incorporated the results of triennial reviews conducted in 1984 and 1987. The Third Edition - 1994 incorporated all amendments approved between 1989 and 1994, included new state policies and programs, edited and restructured the Basin Plan to make it consistent with other regional and state plans, and substantively amended sections dealing with beneficial uses, objectives, and implementation programs. The current edition (Fourth Edition - 1998) incorporates two new amendments approved since 1994. One amendment deals with compliance schedules in permits and the other addresses agricultural subsurface drainage discharges.

In this Basin Plan, "Regional Water Board" refers to the Central Valley Regional Water Quality Control Board and "State Water Board" refers to the State Water Resources Control Board.

1 INTRODUCTION

1.1 BASIN DESCRIPTION

This Basin Plan covers the entire area included in the Sacramento and San Joaquin River drainage basins (see maps in pocket* and Figure 2-1). The basins are bound by the crests of the Sierra Nevada on the east and the Coast Range and Klamath Mountains on the west. They extend some 400 miles from the California - Oregon border southward to the headwaters of the San Joaquin River.

*NOTE: The planning boundary between the San Joaquin River Basin and the Tulare Lake Basin follows the southern watershed boundaries of the Little Panoche Creek, Moreno Gulch, and Capita Canyon to boundary of the Westlands Water District. From here, the boundary follows the northern edge of the Westlands Water District until its intersection with the Firebaugh Canal Company's Main Lift Canal. The basin boundary then follows the Main Lift Canal to the Mendota Pool and continues eastward along the channel of the San Joaquin River to the southern boundary of the Little Dry Creek watershed (Hydrologic Subareas No. 540.70 and 545.30) and then follows along the southern boundary of the San Joaquin River drainage basin.

The Sacramento River and San Joaquin River Basins cover about one fourth of the total area of the State and over 30% of the State's irrigable land. The Sacramento and San Joaquin Rivers furnish roughly 51% of the State's water supply. Surface water from the two drainage basins meet and form the Delta, which ultimately drains to San Francisco Bay. Two major water projects, the Federal Central Valley Project and the State Water Project, deliver water from the Delta to Southern California, the San Joaquin Valley, Tulare Lake Basin, the San Francisco Bay area, as well as within the Delta boundaries.

The Delta is a maze of river channels and diked islands covering roughly 1,150 square miles, including 78 square miles of water area. The legal boundary of the Delta is described in Section 12220 of the Water Code (also see Figure 3-1 of this Basin Plan).

Ground water is defined as subsurface water that occurs beneath the ground surface in fully saturated zones within soils and other geologic formations. Where ground water occurs in a saturated geologic unit that contains sufficient permeability and thickness to yield significant quantities of water to wells or springs, it can be defined as an aquifer (USGS, Water Supply Paper 1988, 1972). A ground water basin is defined as a hydrogeologic unit containing one large aquifer or several connected and interrelated aquifers (Todd, *Groundwater Hydrology*, 1980).

Major ground water basins underlie both valley floors, and there are scattered smaller basins in the foothill areas and mountain valleys. In many parts of the Region, usable ground waters occur outside of these currently identified basins. There are water-bearing geologic units within ground water basins in the Region that do not meet the definition of an aquifer. Therefore, for basin planning and regulatory purposes, the term "ground water" includes all subsurface waters that occur in fully saturated zones and fractures within soils and other geologic formations, whether or not these waters meet the definition of an aquifer or occur within identified ground water basins.

1.1.1 Sacramento River Basin

The Sacramento River Basin covers 27,210 square miles and includes the entire area drained by the Sacramento River. For planning purposes, this includes all watersheds tributary to the Sacramento River that are north of the Cosumnes River watershed. It also includes the closed basin of Goose Lake and drainage sub-basins of Cache and Putah Creeks.

The principal streams are the Sacramento River and its larger tributaries: the Pit, Feather, Yuba, Bear, and American Rivers to the east; and Cottonwood, Stony, Cache, and Putah Creeks to the west. Major reservoirs and lakes include Shasta, Oroville, Folsom, Clear Lake, and Lake Berryessa.

DWR Bulletin 118-80 identifies 63 ground water basins in the Sacramento watershed area. The Sacramento Valley floor is divided into 2 ground water basins. Other basins are in the foothills or mountain valleys. There are areas other than those identified in the DWR Bulletin with ground waters that have beneficial uses.

1.1.2 San Joaquin River Basin

The San Joaquin River Basin covers 15,880 square miles and includes the entire area drained by the San Joaquin River. It includes all watersheds tributary to the San Joaquin River and the Delta south of the Sacramento River and south of the American River watershed. The southern planning boundary is described in the first paragraph of the previous page.

The principal streams in the basin are the San Joaquin River and its larger tributaries: the Cosumnes, Mokelumne, Calaveras, Stanislaus, Tuolumne, Merced, Chowchilla, and Fresno Rivers. Major reservoirs and lakes include Pardee, New Hogan, Millerton, McClure, Don Pedro, and New Melones.

DWR Bulletin 118-80 identifies 39 ground water basins in the San Joaquin watershed area. The San Joaquin Valley floor is divided into 15 separate ground water basins, largely based on political considerations. Other basins are in the foothills or mountain valleys. There are areas other than those identified in the DWR Bulletin with ground waters that have beneficial uses.

1.1.2.1 Grassland Watershed

The Grassland watershed is a valley floor sub-basin of the San Joaquin River Basin. The portion of the watershed for which agricultural subsurface drainage policies and regulations apply covers an area of approximately 370,000 acres and is bounded on the north by the alluvial fan of Orestimba Creek and by the Tulare Lake Basin to the south. The San Joaquin River forms the eastern boundary and Interstate Highway 5 forms the approximate western boundary. The San Joaquin River forms a wide flood plain in the region of the Grassland watershed.

The hydrology of the watershed has been irreversibly altered due to water projects and is presently governed by land uses. These uses are primarily, managed wetlands and agriculture. The wetlands form important waterfowl habitat for migratory waterfowl using the Pacific Flyway. The alluvial fans of the western and southern portions of the watershed contain salts and selenium which can be mobilized through irrigation practices and can impact beneficial uses of surface waters and wetlands if not properly regulated.

1.1.2.2 Lower San Joaquin River Watershed and Subareas

Technical descriptions of the Lower San Joaquin River (LSJR) and its component subareas are contained in Appendix 41. General descriptions follow: The LSJR watershed encompasses approximately 4,580 square miles in Merced County and portions of Fresno, Madera, San Joaquin, and Stanislaus counties. For planning purposes, the LSJR watershed is defined as the area draining to the San Joaquin River downstream of the Mendota Dam and upstream of the Airport Way Bridge near Vernalis, excluding the areas upstream of dams on the major Eastside reservoirs: New Don Pedro, New Melones, Lake McClure, and similar Eastside reservoirs in the LSJR system. The LSJR watershed excludes all lands within Calaveras, Tuolumne, San Benito,

and Mariposa Counties. The LSJR watershed has been subdivided into seven major sub areas. In some cases major subareas have been further subdivided into minor subareas to facilitate more effective and focused water quality planning ([Table 1-1](#)).

TABLE 1-1 LOWER SAN JOAQUIN RIVER SUBAREAS

Major Subareas		Minor Subareas	
1	LSJR upstream of Salt Slough	1a	Bear Creek
		1b	Fresno-Chowchilla
2	Grasslands	-- --	
3	East Valley Floor	3a	Northeast Bank
		3b	North Stanislaus
		3c	Stevinson
		3d	Turlock Area
4	Northwest Side	4a	Greater Orestimba
		4b	Westside Creeks
		4c	Vernalis North
5	Merced River	-- --	
6	Tuolumne River	-- --	
7	Stanislaus River	-- --	

1. Lower San Joaquin River upstream of Salt Slough

This subarea drains approximately 1,480 square miles on the east side of the LSJR upstream of the Salt Slough confluence. The subarea includes the portions of the Bear Creek, Chowchilla River and Fresno River watersheds that are contained within Merced and Madera Counties. The northern boundary of the subarea generally abuts the Merced River Watershed. The western and southern boundaries follow the San Joaquin River from the Lander Avenue Bridge to Friant, except for the lands within the Columbia Canal Company, which are excluded. Columbia Canal Company lands are included in the Grassland Subarea. This subarea is composed of the following drainage areas:

1a. Bear Creek (effective drainage area)

This minor subarea is a 620 square mile subset of lands within the LSJR upstream of Salt Slough Subarea. The Bear Creek Minor Subarea is predominantly comprised of the portion of the Bear Creek Watershed that is contained within Merced County.

1b. Fresno-Chowchilla

The Fresno-Chowchilla Minor Subarea is comprised of approximately 860 square miles of land within the southern portion of the LSJR upstream of Salt Slough Subarea. This minor subarea is located in southeastern Merced County and western Madera County and contains the land area that drains into the LSJR between Sack Dam and the Bear Creek confluence, including the drainages of the Fresno and Chowchilla Rivers.

2. Grassland

The Grassland Subarea drains approximately 1,370 square miles on the west side of the LSJR in portions of Merced, Stanislaus, and Fresno Counties. This subarea includes the Mud Slough, Salt Slough, and Los Banos Creek watersheds. The eastern boundary of this subarea is generally formed by the LSJR between the Merced River confluence and the Mendota Dam. The Grassland Subarea extends across the LSJR, into the east side of the San Joaquin Valley, to include the lands within the Columbia Canal Company. The western boundary of the subarea

generally follows the crest of the Coast Range with the exception of lands within San Benito County, which are excluded.

3. East Valley Floor

This subarea includes approximately 413 square miles of land on the east side of the LSJR that drains directly to the LSJR between the Airport Way Bridge near Vernalis and the Salt Slough confluence. The subarea is largely comprised of the land between the major east-side drainages of the Tuolumne, Stanislaus, and Merced Rivers. This subarea lies within central Stanislaus County and north-central Merced County. Numerous drainage canals, including the Harding Drain and natural drainages, drain this subarea. The subarea is comprised of the following minor subareas:

3a. Northeast Bank

This minor subarea of the East Valley Floor contains all of the land draining the east side of the San Joaquin River between the Maze Boulevard Bridge and the Crows Landing Road Bridge, except for the Tuolumne River subarea. The Northeast Bank covers approximately 123 square miles in central Stanislaus County.

3b. North Stanislaus

The North Stanislaus minor subarea is a subset of lands within the East Valley Floor Subarea. This minor subarea drains approximately 68 square miles of land between the Stanislaus and Tuolumne River watersheds that flows into the San Joaquin River between the Airport Way Bridge near Vernalis and the Maze Boulevard Bridge.

3c. Stevinson

This minor subarea of the East Valley Floor contains all of the land draining to the LSJR between the Merced River confluence and the Lander Avenue (Highway 165) Bridge. The Stevinson Minor Subarea occupies approximately 44 square miles in north-central Merced County.

3d. Turlock Area

This minor subarea of the East Valley Floor contains all of the land draining to the LSJR between the Crows Landing Road Bridge and the Merced River confluence. The Turlock Area Minor Subarea occupies approximately 178 square miles in south-central Stanislaus County and northern Merced County.

4. Northwest Side

This 574 square mile area generally includes the lands on the West side of the LSJR between the Airport Way Bridge near Vernalis and the Newman Waste way confluence. This subarea includes the entire drainage area of Orestimba, Del Puerto, and Hospital/Ingram Creeks. The subarea is primarily located in Western Stanislaus County except for a small area that extends into Merced County near the town of Newman and the Central California Irrigation District Main Canal.

4a. Greater Orestimba

The Greater Orestimba Minor Subarea is a 285 square mile subset of the Northwest Side Subarea located in southwest Stanislaus County and a small portion of western Merced County. It contains the entire Orestimba Creek watershed and the remaining area that drains into the LSJR from the west between the Crows Landing Road Bridge and the confluence of the Merced River, including Little Salad and Crow Creeks.

4b. Westside Creeks

This Minor Subarea is comprised of 277 square miles of the Northwest Side Subarea in western Stanislaus County. It consists of the areas that drain into the west side of the San

Joaquin River between Maze Boulevard and Crows Landing Road, including the drainages of Del Puerto, Hospital, and Ingram Creeks.

4c. Vernalis North

The Vernalis North Minor Subarea is a 12 square mile subset of land within the most northern portion of the Northwest Side Subarea. It contains the land draining to the San Joaquin River from the west between the Maze Boulevard Bridge and the Airport Way Bridge near Vernalis.

5. Merced River

This 294 square mile subarea is comprised of the Merced River watershed downstream of the Merced-Mariposa county line and upstream of the River Road Bridge. The Merced River subarea includes a 13-square-mile “island” of land (located between the East Valley Floor and the Tuolumne River Subareas) that is hydrologically connected to the Merced River by the Highline Canal.

6. Tuolumne River

This 294 square mile subarea is comprised of the Tuolumne River watershed downstream of the Stanislaus-Tuolumne county line, including the drainage of Turlock Lake, and upstream of the Shiloh Road Bridge.

7. Stanislaus River

This 157 square mile subarea is comprised of the Stanislaus River watershed downstream of the Stanislaus-Calaveras county line and upstream of Caswell State Park.

2 EXISTING AND POTENTIAL BENEFICIAL USES

Beneficial uses are critical to water quality management in California. State law defines beneficial uses of California's waters that may be protected against quality degradation to include (and not be limited to) "...domestic; municipal; agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves" (Water Code Section 13050(f)). Protection and enhancement of existing and potential beneficial uses are primary goals of water quality planning.

Significant points concerning the concept of beneficial uses are:

1. All water quality problems can be stated in terms of whether there is water of sufficient quantity or quality to protect or enhance beneficial uses.
2. Beneficial uses do not include all of the reasonable uses of water. For example, disposal of wastewaters is not included as a beneficial use. This is not to say that disposal of wastewaters is a prohibited use of waters of the State; it is merely a use which cannot be satisfied to the detriment of beneficial uses. Similarly, the use of water for the dilution of salts is not a beneficial use although it may, in some cases, be a reasonable and desirable use of water.
3. The protection and enhancement of beneficial uses require that certain quality and quantity objectives be met for surface and ground waters.
4. Fish, plants, and other wildlife, as well as humans, use water beneficially.

Beneficial use designation (and water quality objectives, see Chapter 3, or variance of a water quality standard, see Chapter 4) must be reviewed at least once during each three-year period for the purpose of modification as appropriate (40 CFR 131.20).

The beneficial uses, and abbreviations, listed below are standard basin plan designations.

Municipal and Domestic Supply (MUN) - Uses of water for community, military, or individual water supply systems including, but not limited to, drinking water supply.

Agricultural Supply (AGR) - Uses of water for farming, horticulture, or ranching including, but not limited to, irrigation (including leaching of salts), stock watering, or support of vegetation for range grazing.

Industrial Service Supply (IND) - Uses of water for industrial activities that do not depend primarily on water quality including, but not limited to, mining, cooling water supply, hydraulic conveyance, gravel washing, fire protection, or oil well repressurization.

Industrial Process Supply (PRO) - Uses of water for industrial activities that depend primarily on water quality.

Ground Water Recharge (GWR) - Uses of water for natural or artificial recharge of ground water for purposes of future extraction, maintenance of water quality, or halting of saltwater intrusion into freshwater aquifers.

Freshwater Replenishment (FRSH) - Uses of water for natural or artificial maintenance of surface water quantity or quality.

Navigation (NAV) - Uses of water for shipping, travel, or other transportation by private, military, or commercial vessels.

Hydropower Generation (POW) - Uses of water for hydropower generation.

Water Contact Recreation (REC-1) - Uses of water for recreational activities involving body contact with water, where ingestion of water is reasonably possible. These uses include, but are not limited to, swimming, wading, water-skiing, skin and scuba diving, surfing, white water activities, fishing, or use of natural hot springs.

Non-contact Water Recreation (REC-2) - Uses of water for recreational activities involving proximity to water, but where there is generally no body contact with water, nor any likelihood of ingestion of water. These uses include, but are not limited to, picnicking, sunbathing, hiking, beachcombing, camping, boating, tidepool and marine life study, hunting, sightseeing, or aesthetic enjoyment in conjunction with the above activities.

Commercial and Sport Fishing (COMM) - Uses of water for commercial or recreational collection of fish, shellfish, or other organisms including, but not limited to, uses involving organisms intended for human consumption or bait purposes.

Aquaculture (AQUA) - Uses of water for aquaculture or mariculture operations including, but not limited to, propagation, cultivation, maintenance, or harvesting of aquatic plants and animals for human consumption or bait purposes.

Warm Freshwater Habitat (WARM) - Uses of water that support warm water ecosystems including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates.

Cold Freshwater Habitat (COLD) - Uses of water that support cold water ecosystems including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates.

Estuarine Habitat (EST) - Uses of water that support estuarine ecosystems including, but not limited to, preservation or enhancement of estuarine habitats, vegetation, fish, shellfish, or wildlife (e.g., estuarine mammals, waterfowl, shorebirds).

Wildlife Habitat (WILD) - Uses of water that support terrestrial or wetland ecosystems including, but not limited to, preservation and enhancement of terrestrial habitats or wetlands, vegetation, wildlife (e.g., mammals, birds, reptiles, amphibians, invertebrates), or wildlife water and food sources.

Preservation of Biological Habitats of Special Significance (BIOL) - Uses of water that support designated areas or habitats, such as established refuges, parks, sanctuaries, ecological reserves, or Areas of Special Biological Significance (ASBS), where the preservation or enhancement of natural resources requires special protection.

Rare, Threatened, or Endangered Species (RARE) - Uses of water that support aquatic habitats necessary, at least in part, for the survival and successful maintenance of plant or animal species established under state or federal law as rare, threatened or endangered.

Migration of Aquatic Organisms (MIGR) - Uses of water that support habitats necessary for migration or other temporary activities by aquatic organisms, such as anadromous fish.

Spawning, Reproduction, and/or Early Development (SPWN) - Uses of water that support high quality aquatic habitats suitable for reproduction and early development of fish.

Shellfish Harvesting (SHELL) - Uses of water that support habitats suitable for the collection of filter-feeding shellfish (e.g., clams, oysters, and mussels) for human consumption, commercial, or sports purposes.

2.1 SURFACE WATERS

Existing and potential beneficial uses which currently apply to surface waters of the basins are presented in [Figure 2-1](#) and [Table 2-1](#). The beneficial uses of any specifically identified water body generally apply to its tributary streams, except as provided below:

- MUN, COLD, MIGR and SPWN do not apply to Old Alamo Creek (Solano County) from its headwaters to the confluence with New Alamo Creek
- MUN and the human consumption of aquatic organisms do not apply to Sulphur Creek (Colusa County) from Schoolhouse Canyon to the confluence with Bear Creek

In some cases a beneficial use may not be applicable to the entire body of water. In these cases the Regional Water Board's judgment will be applied.

It should be noted that it is impractical to list every surface water body in the Region. For unidentified water bodies, the beneficial uses will be evaluated on a case-by-case basis.

Water Bodies within the basins that do not have beneficial uses designated in [Table 2-1](#) are assigned MUN designations in accordance with the provisions of State Water Board Resolution No. 88-63 which is, by reference, a part of this Basin Plan, except as provided below:

- Old Alamo Creek (Solano County) from its headwaters to the confluence with New Alamo Creek
- Water bodies listed in Appendix 44, Water Bodies That Meet One or More Sources of Drinking Water Policy (Resolution 88-63) Exceptions

These MUN designations in no way affect the presence or absence of other beneficial use designations in these water bodies.

In making any exemptions to the beneficial use designation of MUN, the Regional Board will apply the exceptions listed in Resolution 88-63 (Appendix Item 8) and the excepted water bodies will be listed in Appendix 44.

2.2 GROUND WATERS

Beneficial uses of ground waters of the basins are presented below. For the purposes of assigning beneficial uses, the term ground water is defined in Chapter 1.

Unless otherwise designated by the Regional Water Board, all ground waters in the Region are considered as suitable or potentially suitable, at a minimum, for municipal and domestic water supply (MUN), agricultural supply (AGR), industrial service supply (IND), and industrial process supply (PRO).

2.2.1 Beneficial Use De-designations

Ground waters at the Royal Mountain King Mine Site are de-designated for MUN and AGR in the de-designation area shown in [Figure 2-2](#).

In making any exceptions to the beneficial use designation of municipal and domestic supply (MUN), the Regional Water Board will apply the criteria in State Water Board Resolution No. 88-63, 'Sources of Drinking Water Policy'. The criteria for exceptions are:

- "The total dissolved solids (TDS) exceed 3,000 mg/l (5,000 &mhos/cm, electrical conductivity) and it is not reasonably expected by the Regional Water Board [for the ground water] to supply a public water system, or
- "There is contamination, either by natural processes or by human activity (unrelated to a specific pollution incident), that cannot reasonably be treated for domestic use using either Best Management Practices or best economically achievable treatment practices, or
- "The water source does not provide sufficient water to supply a single well capable of producing an average, sustained yield of 200 gallons per day, or
- "The aquifer is regulated as a geothermal energy producing source or has been exempted administratively pursuant to 40 CFR, Section 146.4 for the purpose of underground injection of fluids associated with the production of hydrocarbon or geothermal energy, provided that these fluids do not constitute a hazardous waste under 40 CFR Section 261.3."

To be consistent with State Water Board Resolution No. 88-63 in making exceptions to beneficial use designations other than municipal and domestic supply (MUN), the Regional Water Board will consider criteria for exceptions, parallel to Resolution No. 88-63 exception criteria, which would indicate limitations on those other beneficial uses as follows:

In making any exceptions to the beneficial use designation of agricultural supply (AGR), the Regional Water Board will consider the following criteria:

- There is pollution, either by natural processes or by human activity (unrelated to a specific pollution incident), that cannot reasonably be treated for agricultural use using either Best Management Practices or best economically achievable treatment practices, or
- The water source does not provide sufficient water to supply a single well capable of producing an average, sustained yield of 200 gallons per day, or
- The aquifer is regulated as a geothermal energy producing source or has been exempted administratively pursuant to 40 CFR, Section 146.4 for the purpose of underground injection of fluids associated with the production of hydrocarbon or geothermal energy, provided that these fluids do not constitute a hazardous waste under 40 CFR Section 261.3.

In making any exceptions to the beneficial use designation of industrial supply (IND or PRO), the Regional Water Board will consider the following criteria:

- There is pollution, either by natural processes or by human activity (unrelated to a specific pollution incident), that cannot reasonably be treated for industrial use using either Best Management Practices or best economically achievable treatment practices, or
- The water source does not provide sufficient water to supply a single well capable of producing an average, sustained yield of 200 gallons per day.

FIGURE 2-1: SURFACE WATER BODIES AND BENEFICIAL USES

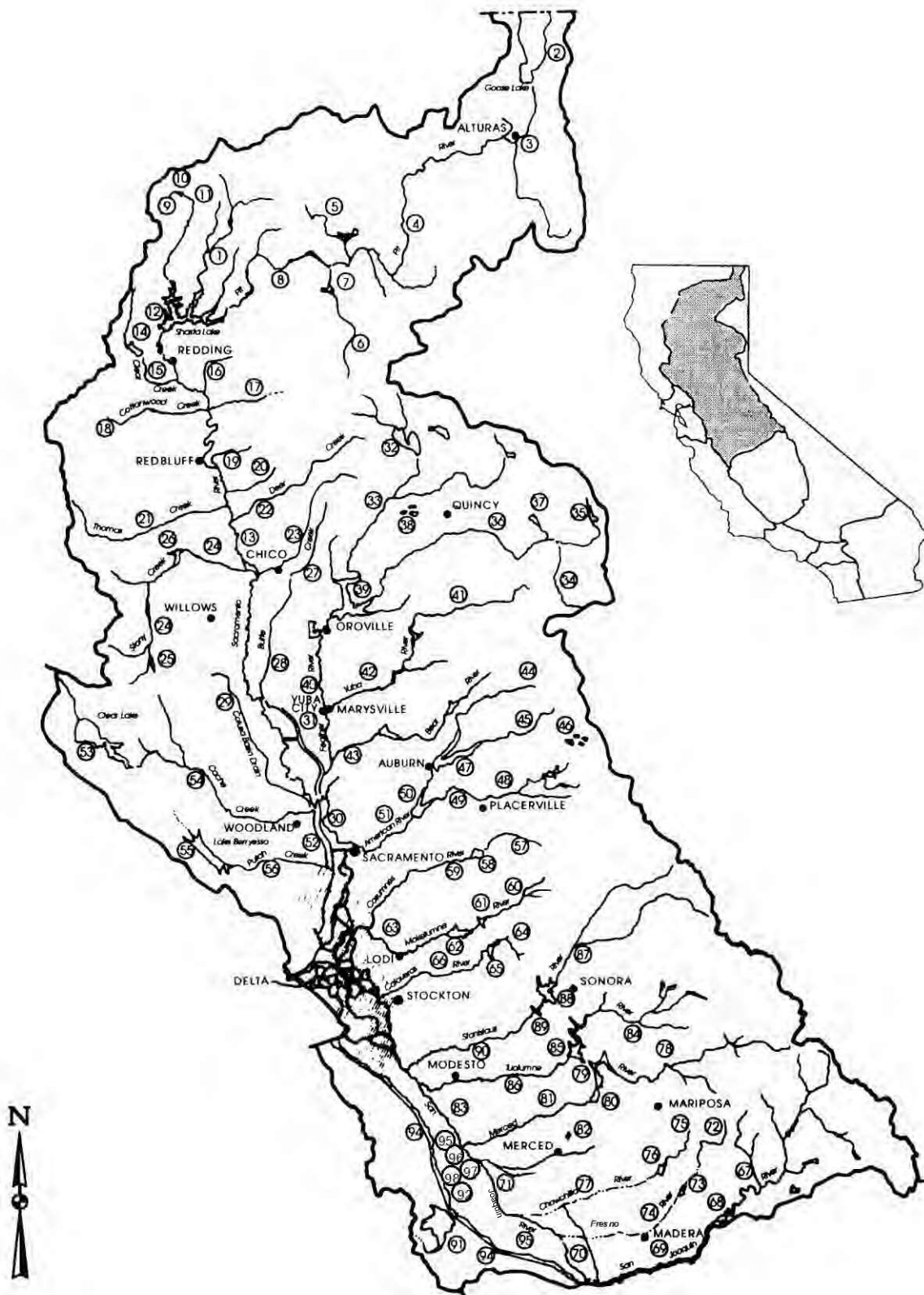


TABLE 2-1

SURFACE WATER BODIES AND BENEFICIAL USES

	SURFACE WATER BODIES	HYDRO UNIT NUMBER	AGRICUL-TURE			INDUSTRY			RECREATION			FRESH-WATER HABITAT (2)		MIGRA-TION	SPAW-NING	WILD	NAV
			MUN	AGR		PR OC	IND	PO W	REC-1	REC-2		WARM	COLD				
1	McCLOUD RIVER	505.	E					POWER	CONTACT	CANOEING AND RAFTING (1)	OTHER NONCONTACT	WARM	COLD	WARM (3)	WARM (3)	WILDLIFE HABITAT	NAVIGATION
2	GOOSE LAKE	527.2		E	E				E	P	E	E	E		E	E	
	PIT RIVER																
3	NORTH FORK, SOUTH FORK, PIT RIVER	526.00	E	E	E				E	P	E	E	E		E	E	
4	CONFLUENCE OF FORKS TO HAT CREEK	526.35	E	E	E			E	E	E	E	E	E		E	E	
5	FALL RIVER	526.41	E	E	E			E	E	E	E	E	E			E	
6	HAT CREEK	526.30		E				E	E		E	E	E		E	E	
7	BAUM LAKE	526.34						E	E		E		E		P	E	
8	MOUTH OF HAT CREEK TO SHASTA LAKE	526.	E	E	E			E	E	E	E	P	E		E	E	
	SACRAMENTO RIVER																
9	SOURCE TO BOX CANYON RESERVOIR	525.22		E	E				E		E		E			E	
10	LAKE SISKIYOU	525.22							E		E	E	E		P	E	
11	BOX CANYON DAM TO SHASTA LAKE	525.2		E	E				E	E	E		E			E	
12	SHASTA LAKE	506.10	E	E				E	E		E	E	E		E	E	
13	SHASTA DAM TO COLUSA BASIN DRAIN		E	E	E		E	E	E	E	E	E	E	E	E	E	E

Notes are located after the table.

BENEFICIAL USES

2-7

May 2018

TABLE 2-1 (cont'd)

SURFACE WATER BODIES AND BENEFICIAL USES

	SURFACE WATER BODIES	HYDRO UNIT NUMBER	AGRICUL-TURE		INDUSTRY			RECREATION			FRESH-WATER HABITAT (2)		MIGRA-TION	SPA-W-NING		WILD NAV
			MUN	AGR	PR OC	IND	PO W	REC-1	REC-2	WARM	COLD	MIGR		SPWN		
14	WHISKEY TOWN RESERVOIR	524.61	E	E					E							
15	CLEAR CREEK BELOW WHISKEYTOWN RESERVOIR	524.62	E	E												
16	COW CREEK	507.3	P	E					E							
17	BATTLE CREEK	507.12		E					E	P						
18	COTTONWOOD CREEK	524.3	E	E	P	P	P	P	E	E						
19	ANTELOPE CREEK	509.63	E	E					E							
20	MILL CREEK	509.42	E	E					E							
21	THOMES CREEK	523.10		E				P	E							
22	DEER CREEK	509.20	E	E					E	E						
23	BIG CHICO CREEK	509.14		E					E	E						
24	STONY CREEK	522.00		E					E	E						
25	EAST PARK RESERVOIR	522.33							E							
26	BLACK BUTTE RESERVOIR	522.12		E					E							
	BUTTE CREEK															
27	SOURCES TO CHICO	521.30	E	E				E	E							
28	BELOW CHICO, INCLUDING BUTTE SLOUGH	520.40		E					E	E						
29	COLUSA BASIN DRAIN	520.21		E					E	E			E			

Notes are located after the table.

BENEFICIAL USES

2-8

134

May 2018

TABLE 2-1 (cont'd)

SURFACE WATER BODIES AND BENEFICIAL USES

	SURFACE WATER BODIES	HYDRO UNIT NUMBER	AGRICUL-TURE		INDUSTRY			RECREATION		FRESH-WATER HABITAT (2)		MIGRA-TION	SPAW-NING		WILD NAV		
			MUN	AGR	PR OC	IND	PO W	REC-1	REC-2	WARM	COLD		MIGR	SPWN			
			MUNICIPAL AND DOMESTIC SUPPLY	IRRIGATION	STOCK WATERING	PROCESS	SERVICE SUPPLY	POWER	CONTACT	CANOEING AND RAFTING (1)	OTHER NONCONTACT	WARM	COLD	WARM (3)	COLD (4)	WILDLIFE HABITAT	NAVIGATION
30	COLUSA BASIN DRAIN TO EYE ("I") STREET BRIDGE	520.00	E	E					E	E	E	E	E	E	E	E	E
31	SUTTER BYPASS	520.3		E					E			E		E	E	E	
	FEATHER RIVER																
32	LAKE ALMANOR	518.41						E	E			E	E	E		E	
33	NORTH FORK, FEATHER RIVER	518.4	E					E	E	E	E		E		E	E	
	MIDDLE FORK, FEATHER RIVER																
34	SOURCE TO LITTLE LAST CHANCE CREEK	518.35		E					E	E	E		E	E	E	E	
35	FRENCHMAN RESERVOIR	518.36							E		E		P	E	E	E	
36	LITTLE LAST CHANCE CREEK TO LAKE OROVILLE	518.3	E						E	E	E		E	E	E	E	
37	LAKE DAVIS	518.34							E		E		P	E	E	E	
38	LAKES BASIN LAKES	518.5							E		E				E	E	
39	LAKE OROVILLE	518.12	E	E				E	E		E		E	E	E	E	
40	FISH BARRIER DAM TO SACRAMENTO RIVER	515.	E	E					E	E	E		E	E	E	E	
	YUBA RIVER																
41	SOURCES TO ENGLEBRIGHT RESERVOIR	517	E	E	E			E	E	E	E				E	E	
42	ENCLEBRIGHT DAM TO FEATHER RIVER	515.3		E	E			E	E	E	E		E	E	E	E	

Notes are located after the table.

BENEFICIAL USES

2-9
135

May 2018